

State of Alabama

Fiscal Year 2007 Strategic Plan

For Statewide Communications Interoperability



Alabama Regional
Incident Support Unit



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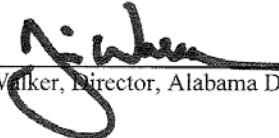
Letter of Agreement w/Signatures

The State of Alabama 2007 Strategic Communications Interoperability Plan (SCIP) is a multi-discipline, multi-jurisdictional plan that establishes a single, comprehensive framework for implementation and execution of interoperable communications in the State of Alabama. It provides the structure and mechanisms for the coordination of support to State, local, and tribal jurisdictions. By signing this letter of agreement, State departments and agencies, local jurisdictions and other organizations acknowledge:

- Participation in the planning process
- Support of the plan concept
- Forming and maintaining partnerships with State, local, tribal, and regional entities, the private sector, and nongovernmental organizations to execute the plan
- Utilizing department- and agency -specific authorities, resources, and programs to facilitate interoperable communications in accordance with the plan; and
- Participating in the continued review and update of the plan

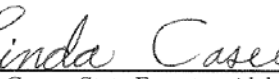
Signatory departments and agencies follow....

Signatories


Jim Walker, Director, Alabama Department of Homeland Security



Chris Murphy, Colonel, Alabama Department of Public Safety

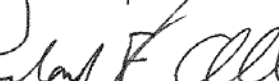

Ron Sparks, Commissioner, Alabama Department of Agriculture and Industry



Linda Casey, State Forester, Alabama Forestry Commission

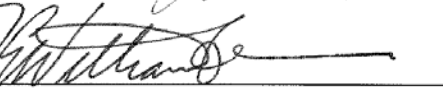

Joe McInnes, Director, Alabama Department of Transportation



Emory Folmar, Director, Alabama Alcohol Beverage Control Board


Barnett Lawley, Commissioner, Alabama Department of Conservation and Natural Resources



Richard Allen, Commissioner, Alabama Department of Corrections


General A. C. Blalock, Adjutant General, Alabama National Guard


Don Williamson, State Health Officer, Alabama Department of Public Health


Ed Paulk, State Fire Marshal

Signatories


Signature


Dennis R. Lee
Name (Print)

Pike County Sheriff's Dept
Agency (Print)


Signature

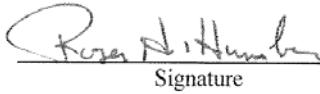
JOHN D. JAMES
Name (Print)

ALABAMA EMA
Agency (Print)


Signature

LARRY L. DUNCAN
Name (Print)

JACKSON CO 9-1-1
Agency (Print)


Signature

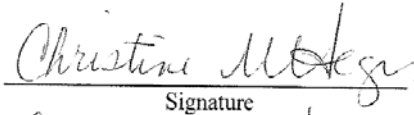
Roger H. Humber
Name (Print)

ACTIC
Agency (Print)


Signature

Johnny Alberson
Name (Print)

Butler Vol. Fire Dept (AAVED)
Agency (Print)


Signature

Christine M Heger
Name (Print)

Baldwin 911 (AAND)
Agency (Print)


Signature

Lyle D. Mitchell
Name (Print)

ALABAMA Power Grid Security
Agency (Print)


Signature

Eric Linsley
Name (Print)

APCO Alabama Frequency Advisor
Agency (Print)



Executive Overview

The lack of voice and data communications interoperability continues to present a significant challenge for public safety responders. After decades of experience with this issue, it is clear to first responders and other emergency organizations that public safety communications and interoperability cannot be solved by any one entity. It needs a partnership among local, state, tribal and Federal public safety organizations and industry.

No matter how capable the Interoperability System, giving existing communications systems the ability to cross-connect with one another is only half the battle. Of equal importance are proper procedures and agreements that describe how and when the equipment is to be used, and by whom. Also, if all system users are not fully trained, and the equipment and procedures are not regularly exercised, the system will not be ready when it is needed.

The best current technology will not resolve the interoperability problem unless all agencies among local, state, tribal, and federal emergency response organizations work together with a collaborative effort. In addition, an effective and interoperable communications system requires a clear and compelling statewide strategy focused on increasing emergency response effectiveness and coordination across all related disciplines and jurisdictions. The common thread that binds all interoperability successes is a cooperative vision shared by all participating agencies, backed up by agreements and policies that mandate how the system will be used when the need arises.

To gain this required coordination, the statewide strategy must be driven by local emergency response organizations and respective officials. This plan will identify those agencies and practitioners who have contributed to this effort daily by their response to all types of situations, whether emergency or not.

The State of Alabama has several types of communications systems in use today. Most systems are legacy equipment that provide acceptable communications to areas of the county and region but is no longer supported by the manufacturer. This makes maintenance and upkeep almost impossible to keep and is a continual problem. With the recent purchase of the JPS ACU-1000 Gateway for each county and the following phased implementation of the Wide Area Interoperability System, agencies throughout the state are now able to establish interoperability with all communications systems in use in their particular region. Cross-discipline and cross-jurisdictional communications are improved, but this does not relieve the problem of legacy and disparate equipment still in use.

This statewide strategic plan will provide the strategy set forth by planning participants to correct these scenarios and provide advances in communications interoperability. It will provide plans with definite timelines to carry out the goal of total interoperability of

communications throughout the state. Many changes are already in progress, but much more work needs to be done. This plan creates a “bottoms up” approach, which will gain “buy-in” by local practitioners, agencies to ensure follow through, and commitment of implementation by all affected. Interviews of points of contact (POC) and focus groups resulting in data that provides insight into the present status of communications interoperability and visions of the future. Technical expertise will be used to ensure a reasonable, attainable and sustainable path that can be reached by commitment of all involved.

TABLE OF CONTENTS

Record of Change	3
Letter of Agreement w/Signatures	4
Executive Overview	7
1 Introduction	13
2 Background and Preliminary Steps.....	15
2.1 State Overview	17
2.1.1 NIMS/Multi-Agency Coordination System (MACS)	31
2.1.2 Municipal / County / Regional / State Jurisdictions	39
2.1.3 Metropolitan Areas/TIC Plans	41
2.2 Participating Agencies and Points of Contact	42
2.3 Statewide Plan Point of Contact	43
2.4 Scope and Timeframe	44
3 Methodology	46
4 Current Statewide Assessment	49
4.0.1 Description of Interoperable Capabilities by ALDHS Regions.....	53
4.0.2 Interoperability Projects - Statewide	61
4.1 Governance Structure.....	70
4.2 Technology – Statewide Shared.....	74
4.2.1 Alabama Strategic Technology Reserve (STR)	77
4.2.2 State Agencies	83
4.2.3 Other Shared Resources	94
4.3 Standard Operating Procedures	101
4.4 Exercise and Training Plan.....	104
4.5 Usage	110
5 Strategy	112
5.1 Interoperability Vision	112
5.2 Mission	114
5.3 Goals and Objectives.....	115
5.4 Interoperability Investments.....	118
5.5 National Incident Management System (NIMS) Compliance	151
5.6 Review and Update Process	153
6 Implementation.....	154

7 Funding	157
8 SCIP and PSIC Criteria Reference	158
9 Close	165
Appendix A: SEIC Info.....	166
Appendix B: AEM Agencies and Contact Information	167
Appendix C: County Governance Committees	169
Appendix D: SEIC Working Comm. / Commo POC.....	175
Appendix E: Meeting Minutes / List of SEIC Membership	180
Appendix F: Minutes / Attendee List 2nd SEIC Meeting	182
Appendix G: Minutes / Attendee SCIP Workshop.....	184
Appendix H: Minutes of AHSTF Meeting to Establish SEIC.....	186
Appendix I: NIMS Statewide Compliance Letter	188
Appendix J: MOU Agreement by Local Agencies.....	189
Glossary	193

Table of Figures

Figure 2.1	Map of Alabama.....	17
Figure 2.2	Alabama Highway Map.....	20
Figure 2.3	Alabama Tornado Activity	26
Figure 2.4	Alabama Hurricane Activity.....	26
Figure 2.5	Hurricane Evacuation Roads.....	27
Figure 2.6	Coastal Wind Envelopes.....	27
Figure 2.7	TVA Electrical Grid.....	28
Figure 2.8	Event ICS Structure.....	34
Figure 2.9	ALDHS / AEMA Regions.....	39
Figure 3.1	Statewide LE Dispatch Frequencies.....	52
Figure 3.2	Statewide FD Dispatch Frequencies.....	52
Figure 4.1	800 MHz Rebanding National Plan.....	66
Figure 4.2	800 MHz Rebanding – Today.....	67
Figure 4.3	WAIS Components / RCV.....	68
Figure 4.4	AEMA Repeater Map.....	83
Figure 4.5	AEMA Repeater Coverage.....	83
Figure 4.6	ALDOT Tower Map.....	86
Figure 4.7	ADPS Post and Field Office Maps.....	87
Figure 4.8	AL Forestry Tower Map.....	88
Figure 4.9	Alabama Military Post Map.....	90
Figure 4.10	AL DOC Sites.....	91
Figure 4.11	ADCNR Tower Map.....	92
Figure 4.12	ABC Board Districts.....	93
Figure 4.13	SouthernLINC Coverage Map.....	94
Figure 4.14	Nextel Coverage Map.....	94
Figure 6.1	Interoperability Continuum.....	156

List of Tables

Table of Contents.....	9
Table of Figures.....	11
List of Tables.....	12
Table 2.1 List of Alabama River Ports.....	21
Table 2.2 Alabama's Risk Assessment.....	28
Table 2.3 Alabama Regions and Counties.....	40
Table 2.4 Metropolitan Areas/TIC Plans.....	41
Table 4.1 700 MHz Frequencies.....	61
Table 4.2 Interoperable Frequencies Chart.....	74
Table 4.3 Regional Commo Vehicles Bases/Info.....	77
Table 4.4 AEMA Repeater Programming.....	83
Table 4.5 Shared System/Types	97
Table 4.6 POCs for Maintenance/Service of Systems....	98
Table 4.7 SOPs and Points of Contact.....	103
Table 4.8 Statewide Workshops/Exercise Calendar.....	107
Table 4.9 Statewide Workshops/Training Calendar.....	108
Table 5.1 Statewide NIMS Implementation Progress.....	152



1 Introduction

The lack of interoperable communications continues to be a serious, pressing public safety problem that severely undermines the ability of first responders to operate effectively during emergencies. The impact of September 11, 2001, and the recent events of Hurricanes Katrina and Rita, underlines the urgent need for public safety departments and other emergency response agencies, to communicate reliably and effectively with one another when called on in a crisis. Federal, state, tribal and local governments are making progress towards improved communications systems; however, there is much to be done to build collaboration and planning for disaster communications.

To achieve interoperability, public officials must continue to address the following:

- Incompatible and aging communications equipment
- Limited and fragmented funding
- Limited and fragmented planning
- Lack of coordination and cooperation

Governments at all levels play a critical role in meeting each of these challenges. They can provide the leadership to create statewide, regional and local communication interoperability capacity.

Alabama's leadership will benefit most effectively by employing the following strategies outlined in this plan:

- Implementing a governance structure that fosters collaborative planning among local, tribal, state, and federal government agencies
- Encouraging developing flexible and open architecture and standards
- Supporting funding for public safety agencies that work to achieve interoperability, and denying funding for agencies that do not include interoperable solutions

What is interoperability?

"The ability of public safety agencies to talk across disciplines and jurisdictions via radio communications systems, exchanging voice and/or data with one another on demand, in real time, when needed, and as authorized."

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2 Background and Preliminary Steps

Alabama began its development of the statewide plan early in 2006. This process was started by developing a Regional Interoperable Communications Plan, which was exercised and evaluated by ICTAP at Talladega Speedway's Fall Race in October 2006. The exercise involved all first responder communications of agencies that were at the track. The exercise was successful and received a high evaluation from the ICTAP Evaluation Team on site.

After development of the regional plan, a template was developed for each county (67) and tribal government (1) to aid in developing an individual county plan. This template was made available in May 2007. Most counties now have their plan under way, with some completions noted.

A State Executive Interoperable Committee (SEIC) formed in May 2007, included representatives of emergency response disciplines and jurisdictions within Alabama. The committee not only includes first responder agencies, but agencies such as the Alabama Emergency Management Agency, Alabama Forestry Commission, Alabama Department of Public Health, Alabama Department of Conservation, Police Chief Association, Fire Chiefs Association, Alabama National Guard, Alabama Association of E 9-1-1, ABC Board and others. To succeed in statewide interoperability, ***all*** agencies that respond to an event or disaster must be able to communicate with one another. This committee will manage those communication assets and procedures in a way that will benefit the entire state. Members of this committee have joined in the National Governors Association's Policy Academy to help in creating the state plans. Three national meetings have been held within the last year, and committee members have attended these.

Members of the SEIC are included in Appendix A.

The SEIC appointed a working committee consisting of a cross section of responding agencies throughout the state. Members of this committee are mainly agency communications personnel with knowledge of their respective systems. The committee held a workshop, conducted by ICTAP, to aid in the planning. This meeting was held on August 13-14, 2007 at Alabama Department of Homeland Security in Montgomery. Valuable communications information was gathered and included in the plan.

As well as the state committee, each county has appointed its own Governance Committee to control communications within the county and to have representation on the regional committee. These regional committees will have direct responsibility to the SEIC in all interoperable communication matters.

The State of Alabama will benefit from developing this plan in the following ways:

- Provide key resources and assets to be able to promote sharing of communication assets during emergencies
- Provide agencies with Standard Operating Procedures and foster procurement standards
- Create a framework for cohesiveness between agencies
- Ensure interoperable communications is tested in as part of all exercises conducted
- Ensure awareness of the latest technology
- Ensure an effective and efficient response under the State Emergency Operations Plan

By creating a plan that is multi-jurisdictional and multi-disciplinary (interoperable voice and data), partner agencies will be able to share critical information in real time. The plan is broader than the grant and the funding. It will be comprehensive. It will include all State, Local and Tribal Emergency Response Agencies.

2.1 State Overview

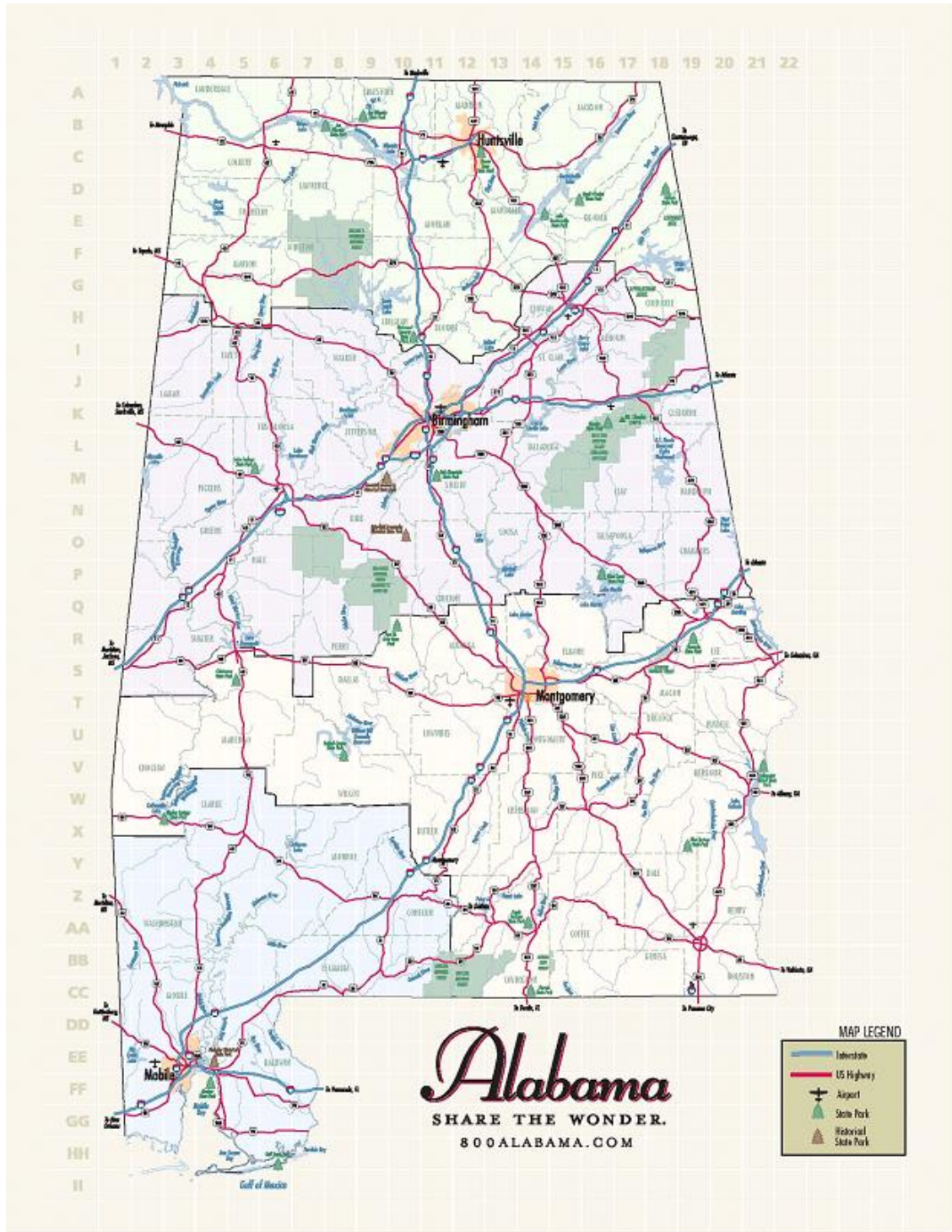


Figure 2.1 Map of Alabama

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Alabama is the 30th largest state in the United States with 52,423 square miles (135,775 km²) of total area. Three point nineteen percent (3.19%) of this is water, making Alabama 23rd for surface water and the second largest inland waterway system in the United States. Baldwin County, along the Gulf Coast, is the largest county in the state in both land area and water area. About three-fifths of the land area is a gentle plain with a general decline towards the Mississippi River and the Gulf of Mexico. The North Alabama region is mostly mountainous, with the Tennessee River cutting a large valley creating many creeks, streams, rivers, mountains and lakes. Another natural wonder in the state is Natural Bridge, the longest land bridge span east of the Mississippi River. Alabama ranges in elevation from sea level at Mobile Bay, to a little more than 1,800 feet (550 m) in the Appalachian Mountains in the northeast.

States bordering Alabama include Tennessee to the north, Georgia to the east, Florida to the south, and Mississippi to the west. Alabama has coastline at the Gulf of Mexico southern edge of the state.

Alabama consists of 67 counties, 457 municipalities, and one federally recognized Indian Tribe. Alabama's highest elevation is at Cheaha Mountain (2407 feet) and lowest point is sea level at the Gulf of Mexico. Topography includes coastal plains, hills and broken terrain. Population is 4,557,808+ with six major population centers. In the years following World War II, Alabama emerged as a growing economic power as the economy of the state transitioned from agricultural to diversified interests in heavy manufacturing, mineral extraction, education and high technology. Today, the state is heavily invested in aerospace, education, health care, banking, and various heavy industries including automobile manufacturing, mineral extraction, and steel production and fabrication. Alabama is also an agricultural region with existing industries in paper, lumber, wood products, mining, rubber, plastic products, transportation equipment and apparel. While its population growth is not rapid, the present statewide communications system is inadequate for present needs. Alabama's state, county, tribal and municipal public safety agencies and services use radio in Low Band, VHF, UHF, and 800MHz.

National Parks: Alabama has several national parks including: Horseshoe Bend National Military Park in Daviston, Little River Canyon National Preserve in Fort Payne, Russell Cave National Monument in Bridgeport, Tuskegee Airmen National Historic Site in Tuskegee, and Tuskegee Institute National Historic Site near Tuskegee.

Scenic/historic sites in Alabama also include the Natchez Trace Parkway, the Selma to Montgomery National Historic Trail, and the Trail of Tears National Historic Trail.

Population: As of 2005, Alabama had an estimated population of 4,557,808, which is an increase of 32,433, or 0.7%, from the prior year and an increase of 110,457, or 2.5%, since the year 2000. This includes a natural increase since the last census of 77,418 people (that is, 319,544 births minus 242,126 deaths) and an increase because of net migration of 36,457 people into the state. Immigration from outside the United

States resulted in a net increase of 25,936 people, and migration within the country produced a net increase of 10,521 people.

The center of population of Alabama is located in Chilton County, outside the town of Jemison in an area known as Jemison Division.

Highway System:

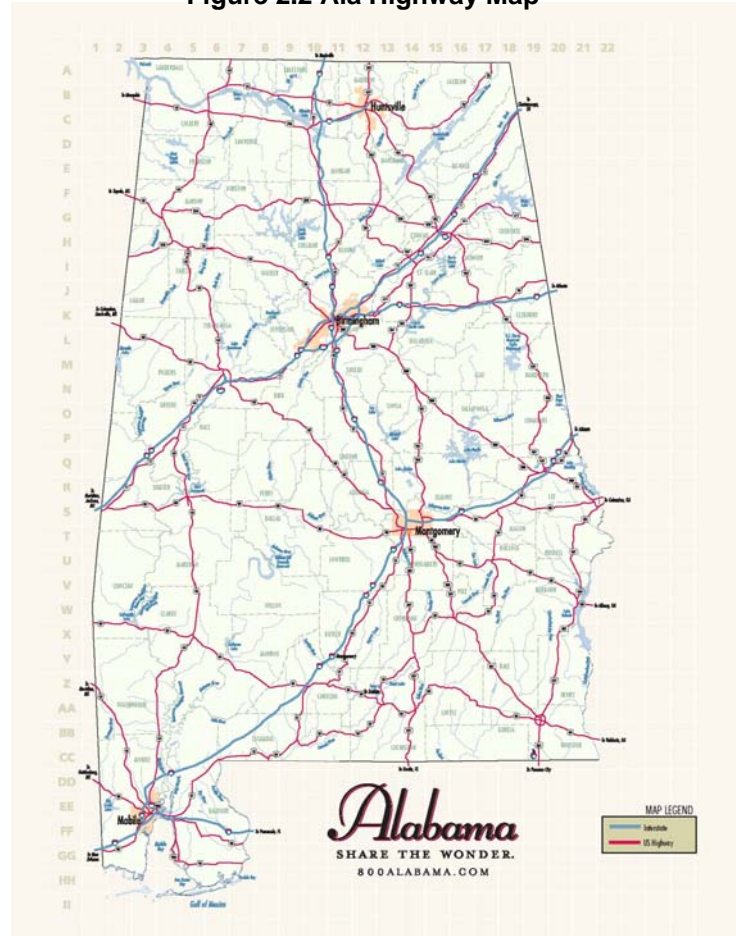
The State of Alabama's transport system serves many needs, including home-to-work commuting, moving freight and goods throughout the state, intercity and interstate business or personal travel and recreational travel. Alabama has five major interstate roads: I-65 runs north-south roughly through the middle of the state; I-59/I-20 travels from the central west border to Birmingham, where I-59 continues to the northeast corner of the state and I-20 continues east towards Atlanta; I-85 is a main thoroughfare to Atlanta, running from Montgomery to the Georgia border; and I-10 traverses the southernmost portion of the state, running from west to east through Mobile. Another interstate road, I-22, is under construction. When completed (est. 2012), it will connect Birmingham with Memphis, Tennessee.

Public transport services are available. Fixed-route and fixed-schedule service is offered in every urbanized area. Three intercity bus terminals and passenger service to 83 Alabama communities are also available.

Alabama has a system of Strategic Highway Network (STRAHNET) roadways, which would be used for the rapid mobilization and deployment of armed forces in the event of war or peacekeeping. These routes connect military bases to the interstate highway network and include over 15,000 miles of roadway nationally. STRAHNET routes within Alabama include:

- U.S. 45 from the Mississippi state line to I-65 in Mobile
- U.S. 82 from the Mississippi state line to I-59 in Tuscaloosa
- U.S. 84 from the Georgia state line to I-65 in Evergreen
- U.S. 231 from the Florida state line to I-85 in Montgomery

Figure 2.2 Ala Highway Map



- U.S. 280 from the Georgia state line to I-20/59 in Birmingham, connecting with I-85 in Auburn/Opelika
- U.S. 431 from Dothan to U.S. 80 in Phenix City

Connector routes also link Fort Rucker, near Dothan, with U.S. 231 and the Anniston Army Depot with I-20.

Waterways: Alabama has the second largest inland waterway system in America. Also in the state is the 12th busiest deepwater port. Together, the six major rivers of Alabama provide about 1,300 miles of navigable waterways. Mobile Bay, deepened by a shipping channel, subsequently allowed Mobile to develop as a modernized port, ranking among the top dozen seaports of the nation. The Tennessee–Tombigbee Waterway, a 234-mile canal opened in 1985, connects two of the state's main river systems. Railroad transport, as elsewhere in the United States, has suffered a relative decline; however, bus, truck, and airline traffic have increased.

Table 2.1 List of Alabama Ports

Port Name	Location	Connected To
Port of Guntersville	Guntersville, on Lake Guntersville	Tennessee River
Port of Decatur	Decatur, on Wheeler Lake	Tennessee River
Port of Muscle Shoals	Florence/Muscle Shoals, on Wilson Lake	Tennessee River
Port of Tuscaloosa	Tuscaloosa, on Black Warrior River	Tennessee-Tombigbee Waterway
Port of Montgomery	Montgomery, on Woodruff Lake	Alabama River
Port of Mobile	Mobile, on Mobile Bay	Gulf of Mexico
Port Birmingham	Birmingport, on Black Warrior River	Tennessee-Tombigbee Waterway

Airports: There are eight commercial and ninety-one general aviation airports in the state. Major airports in Alabama include Birmingham International Airport (BHM), Dothan Regional Airport (DHN), Huntsville International Airport (HSV), Mobile Regional Airport (MOB), Montgomery Regional Airport (IATA: MGM, ICAO: KMGM), Muscle Shoals - Northwest Alabama Regional Airport (MSL), and Tuscaloosa Regional Airport (TCL).

Railroads: The state has five Class 1 railroads, two Amtrak passenger rail routes with many other intermodal facilities to ease the flow of passengers and freight.

Government: The foundational document for Alabama's government is the Alabama Constitution, which was signed in 1901. At more than 770 amendments and 310,000 words, it is the world's longest constitution and is roughly forty times the length of the U.S. Constitution.

Alabama is divided into three equal governmental branches:

The **Legislative Branch** is the Alabama Legislature, a bicameral assembly comprised of the Alabama House of Representatives, with 105 members, and the Alabama Senate, with 35 members. The Legislature is responsible for writing, debating, passing or defeating state legislation.

The **Executive Branch** is responsible for the execution and oversight of laws. The Governor of Alabama is the head of the Executive Branch. Other members of the Executive Branch include the cabinet, the Attorney General of Alabama, the Alabama Secretary of State, the Alabama Commissioner of Agriculture and Industries, the Alabama State Treasurer, and the Alabama State Auditor.

The **Judicial Branch** is responsible for interpreting the Constitution and applying the law in state criminal and civil cases. The highest court is the Supreme Court of Alabama.

Local and County Government

Alabama has 67 counties. Each county has its own elected governing body of commissioners, serving as the executive authority in the county. Because of the restraints in the Alabama Constitution, all but seven counties (Jefferson, Lee, Mobile, Madison, Montgomery, Shelby, and Tuscaloosa) have little-to-no home rule. Instead, most counties must lobby the Local Legislation Committee of the state legislature for even the simplest local policies, such as waste disposal to land use zoning.

At the county level, the chief elected officials are the sheriff, county commissioners, judges of probate, tax assessors and collectors, and boards of education. In the 457 municipalities, there are no uniform systems of government: the mayor–council form is most common, but some cities have a commission, and some employ a city manager.

State Indian Affairs:

There are nine Tribal Governments in Alabama; however, the Federal Government recognizes only one: the **Poarch Band of Creek Indian Tribe in Escambia County**. All communications for the tribe are integrated with Escambia County's public safety and emergency response agencies.

The Alabama Indian Affairs Commission (AIAC) is responsible for:

- Providing a Tribal Relations Officer to coordinate with any tribal governments affected on all aspects of incident management operations
- Organizing and managing a Tribal Relations Field Component to help State Government relations with tribal governments and their incident management organization, communities, victims, and tribal roles

The Assistant Secretary – Indian Affairs (ASIA), Department of the Interior, is the primary official responsible to promote incident liaison, response, and recovery for all federally recognized affected tribal communities after a federally declared disaster. The Bureau of Indian Affairs (BIA) places field officers and uses all available field personnel to aid in incident management activities. All Federal agencies are required by various authorities, to include Executive Order 13175 Consultation and Coordination with Indian Tribal Governments dated November 6, 2000, to work with tribes and tribal members. Tribal Relations serves as a direct link to these communities and works in close coordination with other program elements to ensure availability of Federal disaster assistance.

Tribal Emergency/Disaster Planning Assumptions

Placement

Federal Tribal Relations managers and field officers deploy under the National Response Plan and simultaneously with other early response as determined necessary by responsible officials.

Data Sharing

Up-to-date databases are made available by those State agencies upholding them to provide fixed contacts, relationships, and rosters of Tribal government officials and apt community groups and organizations to properly identified Tribal Relations officials. Current, accurate, and accessible geographic and demographic databases are made available by those Federal agencies preserving them to properly identified Tribal Relations officials. The Department of Homeland Security (DHS) Office of State and Local Government Coordination coordinates data sharing.

Coordination: Tribal Relations officials coordinate with all elements of the Emergency Response Team (ERT) to ensure information spread in the community is timely and consistent.

Annual Events:

NASCAR Race Weekend (Twice a year), Talladega, yearly in April & October
Alabama Jubilee Hot Air Balloon Classic, Decatur, yearly in May
Jubilee City Fest, Montgomery, yearly in April
Spirit of America Festival, Decatur, yearly on the 4th
Mobile Bay Jubilee, Mobile Bay, Shrimp Festival Phenomenon at various times
Mardi Gras, Mobile, yearly in February
Alabama Sports Festival, Birmingham, yearly in June/July
City Stages Music Festival, Birmingham, yearly in June
WC Handy Music Festival, Florence, yearly in July
Regions Charity Classic Golf Tournament, Hoover, yearly in May
Sidewalk Moving Picture Festival, Birmingham, yearly in September
Gadsden Riverfest, Gadsden, yearly in June
Big Spring Jam, Huntsville, yearly in September
Panoply of the Arts, Huntsville, yearly in April
BayFest – Mobile’s Music Festival, Mobile, yearly in October
Major college football games (in state), Sept – Jan yearly
Papajohn.com Bowl, Birmingham, yearly in December
GMAC Bowl, Mobile, yearly in January
Senior Bowl, Mobile, yearly in January
Peanut Festival, Dothan
Veteran Day Parade, Birmingham, yearly on Veteran Day

Major Venues / Stadiums

Joe W. Davis Stadium, Huntsville
Regions Park, Hoover (Formerly the Met)
Montgomery Riverwalk Stadium, Montgomery
Montgomery Convention Center, Montgomery
Hank Aaron Stadium, Mobile
Von Braun Center, Huntsville
Birmingham Jefferson Convention Complex, Birmingham
The Mitchell Center, Mobile
Bryant-Denny Stadium, Tuscaloosa
Jordan-Hare Stadium, Auburn
Movie Gallery Veterans Stadium, Troy
Legion Field, Birmingham
Ladd Peebles Stadium, Mobile
Fair Park Arena, Birmingham (AL State Fairgrounds)
Mobile Civic Center, Mobile
Rickwood Field, Hoover
Robert Trent Jones Golf Trail, various cities
Point Mallard Aquatic Center, Huntsville
Talladega Superspeedway, Talladega
Garrett Coliseum, Montgomery
The International Motorsports Hall of Fame & Museum, Talladega

Barber MotorSports Park, Leeds
Barber Vintage MotorSports Museum, Leeds

Distinctive festivals are celebrated in various locations. Mobile's Mardi Gras is a major event in February, as are its springtime Azalea Trail garden tours and the annual Junior Miss Pageant. Birmingham explores international culture in its annual spring Festival of Arts. The town of Opp hosts a yearly Rattlesnake Rodeo that draws large participation. Most Alabama towns and cities sponsor historic pilgrimages in April to celebrate architectural survivals. The state preserves many parks and several large public lakes, too. Water-skiing, boating, and stock car racing rank among the most popular recreational activities among Alabamians. The Alabama International Speedway at Talladega attracts hundreds of thousands of auto racing enthusiasts twice each year. Three dog-racing tracks draw many bettors. College gridiron football, especially the teams fielded by the state's two major universities, Alabama and Auburn, elicit avid devotion from most the state's residents.

Climate: The Alabama climate is temperate, with an average annual temperature of about 64° F (18° C), mellowed by altitude to some 60° F (16° C) in the northern counties and reaching 67° F (19° C) in the southern counties. The average summer temperature is 79° F (26° C); the winter average is 48° F (9° C). Although summer heat is often eased by the winds blowing in from the Gulf, occasionally the temperature may rise to 100° F (38° C) in the summer. Snow may occasionally fall in the northern counties and frosts are periodic.

Rainfall is evenly spread throughout the year, with an annual average of 56 inches (1,420 millimeters) and a concentration on the coast. Droughts are rare. These favorable conditions have given the state a long growing season, ranging from 200 days in the north to 300 days in the south.

Hazards:

Natural and Technological:

Alabama's closeness to the Gulf of Mexico gives way to a direct path for hurricanes. Although few major category hurricanes made landfall on Alabama's shoreline, there have been many making landfall both east and west of the state, which caused devastating effects. Major hurricanes have come ashore close to the southern shoreline and evoked major damage before losing strength, changing into tropical storms and moving on out of the state. Alabama has an excellent working relationship with other states bordering on the Gulf, and, because of this, excellent planning can be carried out before storms arrive so excessive damage can be reduced as much as possible.

The following four maps depict Alabama's Hurricane and Tornado Activity from 1996 through 2006

**Alabama's
Tornado
Activity
1996 – 2006**

Legend:

**Red Dot
Size**

**F5 Largest
to F3
Smallest**

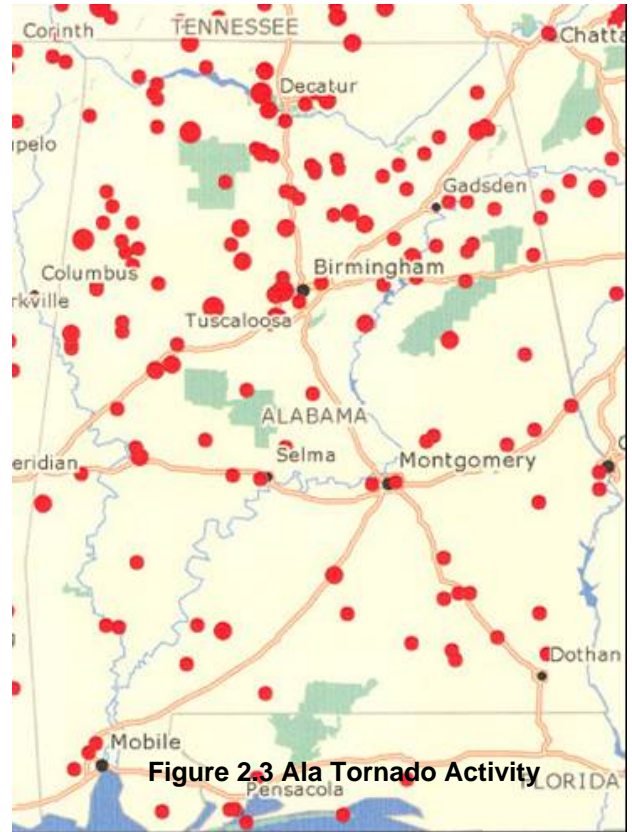


Figure 2.3 Ala Tornado Activity

**Alabama's
Hurricane
Activity
1996 –
2006**

Legend:

Line Color

**Dark Red
Cat 1 to
Blue
Tropical
Storm**

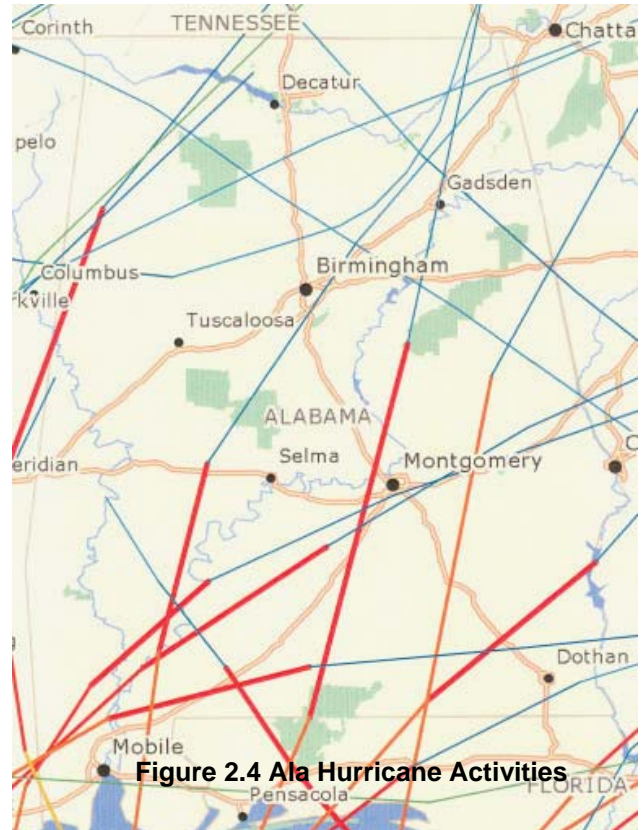


Figure 2.4 Ala Hurricane Activities

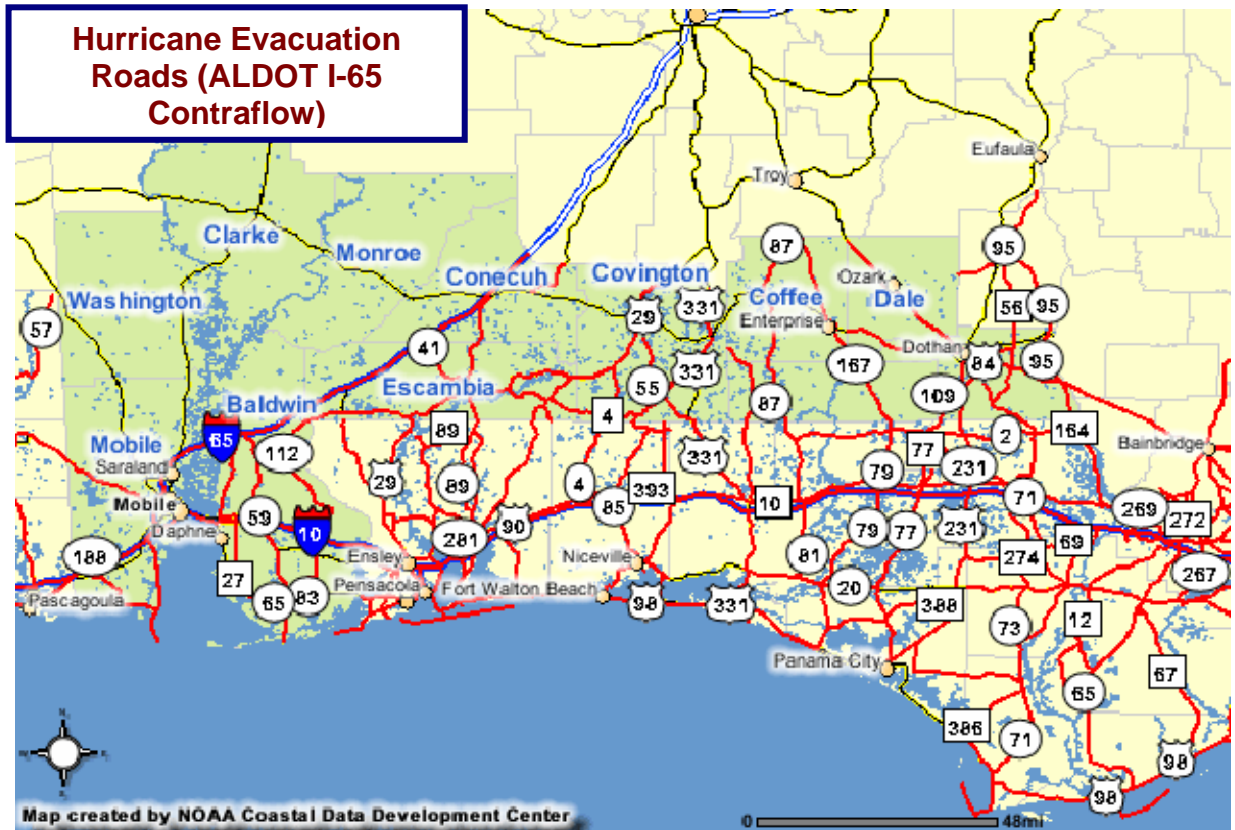


Figure 2.5 Hurricane Evac Roads

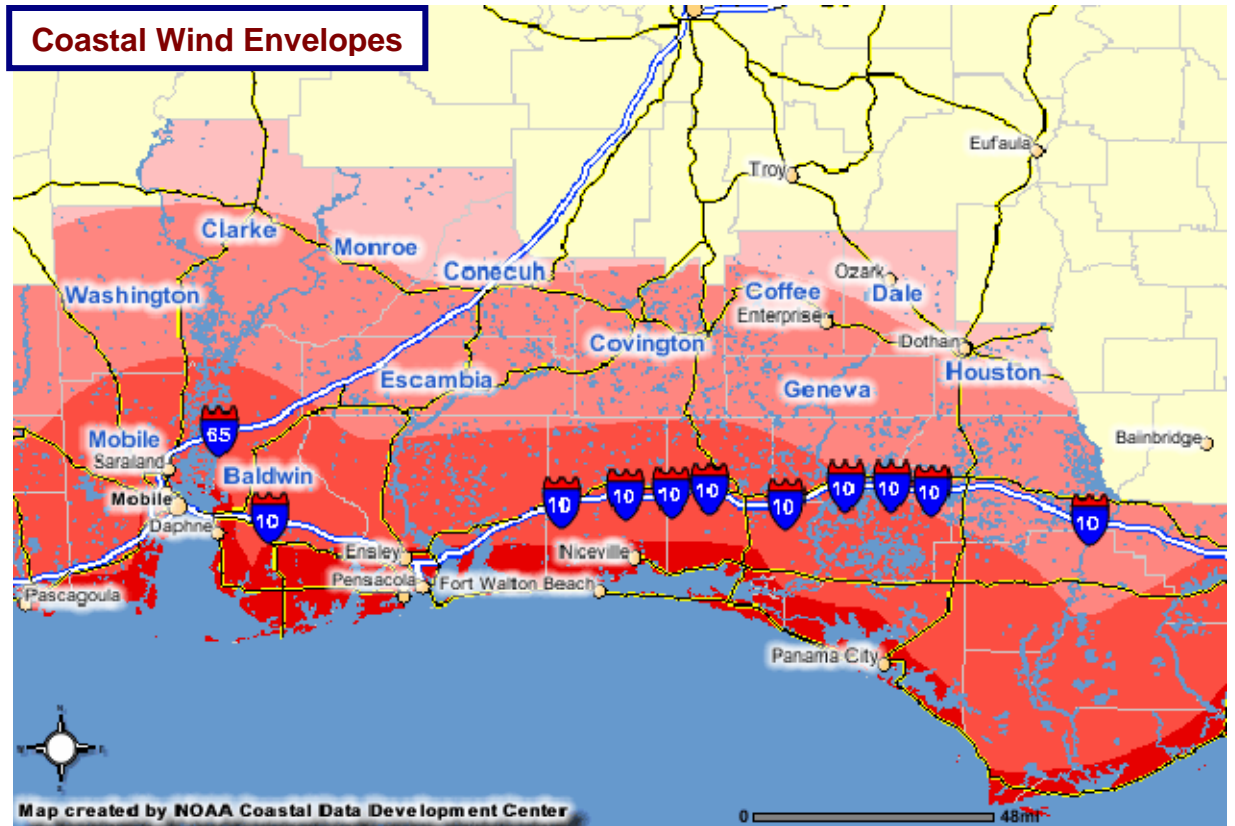


Figure 2.6 Coastal Wind Envelopes

Nuclear Power Plants (NPP)

Tennessee Valley Authority (TVA)

TVA manages Brown's Ferry NPP near Decatur in Alabama's NW Region 5. It is also starting up Belafonte NPP near Huntsville in Alabama's NE Region 6. Both are in the Tennessee River Basin. The adjacent map shows their location and TVA's Electrical Grid for North Alabama and surrounding states.

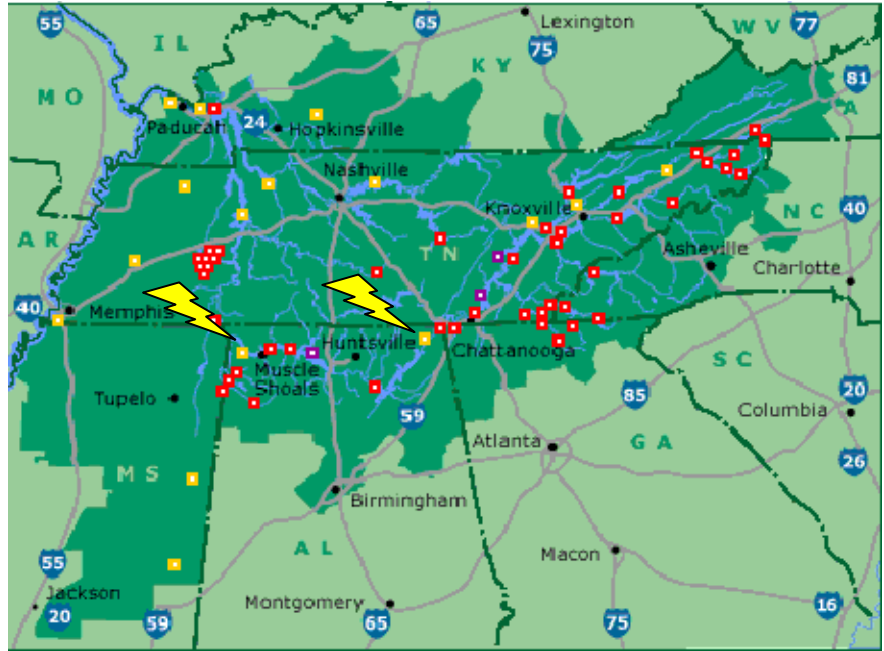


Fig. 2.7 TVA Electrical Grid

Southern Nuclear Operating Company, Alabama Power Company (APC)

APC runs Joseph M. Farley NPP near Dothan in Alabama's SE Region 2

All Alabama Nuclear Power Plants are regulated by the U.S. Nuclear Regulatory Commission.

Statewide Risk Assessment:

Alabama citizens and infrastructure are vulnerable to natural and technological hazards. Vulnerabilities are quantified and combined with potential impact to assets and services to find out risk. The following table is an assessment of these vulnerabilities to certain hazards. It is based on worst-case scenario for hazards and their effects:

Table 2.2 Alabama's Risk Assessment

HAZARD RANKING		RISK			IMPACT		
		HIGH	MED	LOW	HIGH	MED	LOW
NATURAL HAZARDS							
1	Flooding	H			H		
2	Tornadoes/Windstorms	H			H		
3	Hurricanes	H			H		
4	Winter/Ice Storms	H				M	
5	Lightning	H					L
6	Drought		M				L
7	Hail		M				L
8	Extreme Temperatures		M				L

State of Alabama
2007 Strategic Communications Interoperability Plan

9	Wildfire (Updated 2007)	H			H		
10	Urban Fire			L			L
11	Earthquakes			L			L
12	Landslides/Subsidence			L			L
TECHNOLOGICAL HAZARDS							
1	Energy Crisis		M			M	
2	Transportation (Air/Sea/Rail)		M			M	
3	Terrorism			L	H		
4	Chemical Stockpile (CSEPP)			L	H		
5	Radiological (Attack)			L	H		
5	Radiological (Fixed Facility)			L		M	
6	Dam Failure			L		M	
7	Hazmat (Fixed Facility)			L		M	
8	Cyber-Terrorism			L		M	
9	Hazmat (Transportation)			L			L
10	Civil Disturbance			L			L
11	Radiological (Transportation)			L			L

Status of Current Interoperability Initiatives Underway and Past Accomplishments

Several interoperability initiatives have been carried out and others are underway. The following list marks these to status and short explanations:

1. All state and local jurisdictions are becoming compliant with the FCC Order for Narrow Banding Systems.
2. Regional Communications Vehicles have been pre-positioned in each region of the state and are equipped and ready for placement when needed. One vehicle is prepositioned at the state emergency management agency (AEMA) in Clanton for placement to aid any local effort as needed/requested.
3. VHF and UHF National Interoperable Frequencies have been licensed by the Alabama Emergency Management Agency.
4. Local jurisdictions have completed preliminary Tactical Interoperable Communications Plans. These plans include Standard Operating Guidelines, which will be set up in each county and will be standardized throughout the state.
5. A UHF radio was bought for each county EMA to preserve communications with the Statewide Backup UHF Radio System managed by the Alabama Emergency Management Agency.
6. Gateways were bought and installed in each county. These gateways allow interoperability between all disparate radio systems in use throughout the county and adjoining counties. It also includes a direct link to the state backup UHF

System Repeaters. Deployment of the gateways varies throughout the state. Tactical, mobile and fixed implementations have set up the building blocks to integrate this technology into a statewide IP – LMR interoperability system.

7. Wide Area Interoperability System (WAIS, an integrated IP – LMR infrastructure, has been installed in each of the regional communications vehicle and various agencies throughout Alabama. Soon, expansion will include all counties. The WAIS system provides remote access and control over IP infrastructure and Radio over IP (ROIP) capacities for the statewide gateway placements. These technologies allow setting up communications infrastructure (simplex and repeated), interoperability and the ability to set up voice communications over IPO if communication infrastructure is disrupted or fails. The system works over Ethernet connectivity to include LAN, WAN and Internet for backhaul. These mobile systems use satellite connectivity providing self-supporting infrastructure to set up IP connectivity between the units no matter where they are placed.
8. Local jurisdictions are upgrading and expanding communications systems. Jefferson County is going through a major Motorola Firmware Upgrade with will strengthen its ability to communicate throughout the region. Calhoun and Talladega Counties have just completed a major upgrade of their 800 MHz System to Motorola Level 7, which is a major improvement. The City of Opelika and the City of Mobile have just completed their own major upgrade in their communications systems, with Opelika now undergoing Rebanding of their 800 MHz system. The city of Dothan is also going from a rented system to an 800 MHz system they will own.

More county and regional initiatives are in the planning stages and will be carried out soon. Alabama's ability to achieve interoperability has improved over the last several years, and planning will be aggressive in implementation of new technology.

2.1.1 NIMS/Multi-Agency Coordination System (MACS)

Scope / Overview:

The ability of responders to work together across agencies during emergency incidents of all types – interoperability – depends heavily on their ability to communicate. These communications must follow a well-regulated command structure that sets up roles, responsibilities, and well-understood mechanisms for managing the complexity of the multi-agency response. MACS is combining personnel, facilities, equipment, procedures, and communications integrated into a common system. When activated, the MACS has the responsibility of coordination of assisting agency resources and support in a multi-agency or multi-jurisdictional environment. Alabama's response is as follows:

Alabama's MACS Agencies Communications (NIMS/ICS/MACS) is based on several management principles. ICS/NIMS/MACS are built on the following:

- Common terminology covering organizational structures, operational resources, and facilities
- Integrated communications, including development and use of a common communications plan covering processes and technology
- Ensuring that each agency involved in incident management is providing correct situational awareness and resource status information
- Establishing priorities between incidents or Area Commands in concert with Incident or Unified Command
- Acquiring and assigning resources needed by incident management personnel in concert with the priorities set up by Incident or Unified Command
- Anticipating and identifying future resource needs
- Coordinating and resolving policy issues arising from the incident(s)
- Providing strategic coordination as needed

Before an incident, Alabama MACS agencies responsible for taking fitting preincident actions use communications and information management processes and systems to inform and guide various critical activities.

These actions include:

- Mobilization or pre-deployment of resources
- Strategic planning by:
 - Preparedness organizations
 - Multi-agency coordination entities
 - Agency executives
 - Jurisdictional Authorities
 - Emergency Operations Center (EOC) Personnel

During an incident, incident management personnel use communications and information processes and systems to tell the readiness organizations, multi-agency coordination entities, agency executives, jurisdictional authorities, and EOC personnel of the formula, coordination, and execution of operational decisions and requests for support.

In direct compliance to NIMS/ICS/MACS, the State of Alabama Emergency Management Agency (AEMA) under their EOP performs the following:

Policies: The Alabama Emergency Management Agency, using NIMS, ICS and MACS management system, carry out the following:

1. Determine the level of response needed for support in a potential or actual disaster.
2. Initiate alert and notice of the primary ESFs to be activated to support response operations.
3. Collect and process essential information and spread it to ESFs and local governments.
4. Provide input for reports, briefings, displays, and plans.
5. Consolidate key information into reports and other materials; describe and document overall response activities.
6. Tell correct authorities of the status of the overall response.
7. Maintain a current visual display of key information (maps, charts, status boards, etc.) in the SEOC, and provide distribution of key information with computer bulletin boards or electronic mail, as available.
8. Establish a pattern of information flow in support of the action planning began by the SERT leadership.
9. Prepare a consolidated Statewide SITREP every four hours or as directed by the AEMA Director.

Plans for Tactical Communications during an Incident

Participating Functional Disciplines

In response to an event, the local and regional functional disciplines involved in the early incident-scene response are expected to include:

- Communications
- Fire
- Law Enforcement
- Rescue
- Emergency Medical Services

- Hospitals
- Emergency Management
- Explosive Ordnance Disposal
- Hazardous Materials (HAZMAT)
- Area Search and Rescue Teams (SAR)
- Transportation
- Utilities

As well as the local agencies above, state and federal agencies may also be involved in the early incident-scene response. The state and federal agencies listed below have been provided copies of this plan. These state and federal agencies will be invited to join in the training and exercise activities related to this plan.

- Bureau of Alcohol, Tobacco, Firearms and Explosives
- Coast Guard
- Federal Bureau of Investigation
- National Guard
- National Transportation Safety Board
- State Bureau of Indian Affairs (Poarch Creek Indian Tribe)
- State Department of Homeland Security
- State Special HAZMAT Response Team
- State Trooper
- Transportation Security Administration

National Incident Management System/Incident Command System

Under federal and state requirements, all Alabama response agencies use the National Incident Management System/Incident Command System (NIMS/ICS) and are fully involved in the **MAC System** in their response abilities and initiatives. All of these systems need a common, yet flexible organizational structure to promote the effectiveness of response operations involving personnel from various agencies and disciplines.

Just as NIMS/ICS/MACS are scalable to incident size, radio nets are set up as needed to support the incident. For example, a small incident may remain on the agency's primary channel or one named channel for all sections. A large incident with many responders and using ICS sections may have a channel named for each section. In addition, operations may have channels assigned for law enforcement, fire, and EMS operations as needed to support the incident.

Incident Command Structure

The following figure shows a supposed Incident Command System structure that would be suitable for the incident addressed by this plan.

Event ICS Structure

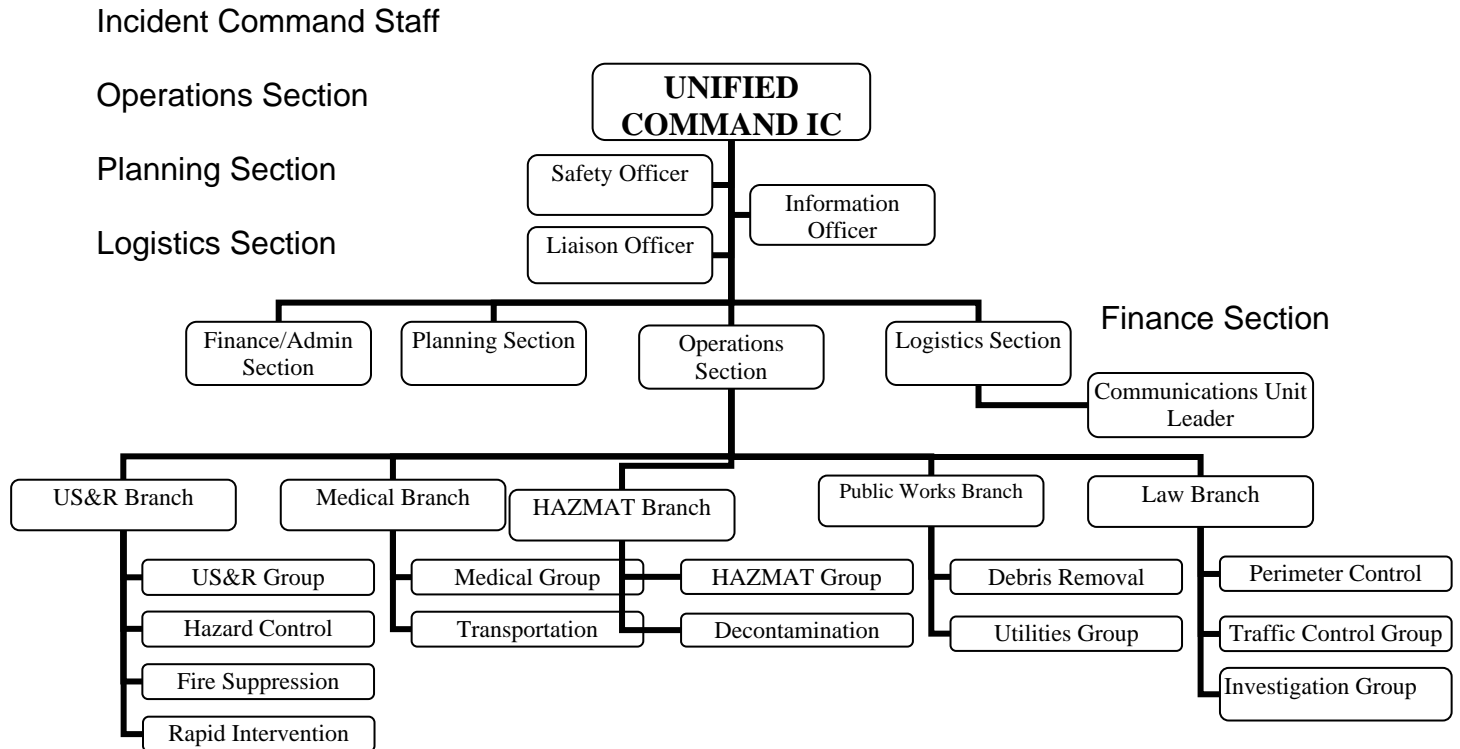


Fig. 2.8 Event ICS Structure

Unified Command Staff / Multi-Agency Coordination System (MACS)

In an incident, unless it is known that all responding agencies will be operating on the same-shared communication system, the Incident Commander should immediately request the Communications Unit Leader (COML) to establish interoperable communications between event agencies. The communications center will activate applicable resources.

The **COML** is the NIMS/ICS/MACS position with overall responsibility for incident communications. As with all command positions, the Unit Leader is expected to be capable of performing all tasks within the Communications Unit, including Radio Operator and Communications Technician. The USDHS Office of Grants and Training published Communications Unit Leader Core Competencies in March 2006, which outlines 26 tasks and 19 competencies for the COML. Many these tasks are general incident command requirements, such as being responsible for subordinate staff, checking in on arrival, getting a briefing from the supervisor, managing the unit, managing resources, and

planning for demobilization. The remaining tasks are specific to the Communications Unit, such as receiving the Incident Action Plan, determining communications support requirements, serving as the technical expert on incident communications, designing the incident communications system, and installing, programming, and issuing equipment.

The COML is a critical position in the Incident Command Structure. The Incident Commander heavily relies on this person and it is the main position for communications during the incident and its boundaries. The effectiveness of this position is directly dependent on the ability and effectiveness of communications to all agencies and personnel involved with the scenario.

Interoperable communications will be attempted in the following order:

1. Co-location of all command and general staff at the incident command post provides the best direct communications and reduces demand on interoperability resources.
2. If the command staff and general staff are users of a shared system, that system will be used to establish interoperable communications.
3. If the command staff and general staff do not have a common shared system, the use of a mutual aid channel should be tried to establish interoperable communications.
4. If a radio cache is available, this radio swap will provide interoperable communications at the required level.
5. If none of the methods above is available, a request should be made to make use of any gateway devices that can interconnect the disparate radio systems of the command staff and general staff. The communications center and the Regional Interoperability Coordinator will identify any available resources. However, the Unified Command Staff should be given priority for available interoperable communications resources.
6. If no other method of interoperability can be set up, the Command staff and general staff will relay communications through staff members.

Operations Section Command

Branch Directors

The Operations Section in this event will need interoperable communications among section members that include the Fire Service Branch, Law Enforcement Branch and Medical Care Group. The urban area has identified this as a critical need for interoperability because of the diversity of agencies involved.

For the Operations Section Chief and applicable branch directors, group supervisors, and unit leaders, Interoperable Communications will be tried in the following order:

1. If responders at the operational level are users of a shared system, that system will be used to set up interoperable communications.
2. If responders at the operational level do not have a common shared system, the use of a mutual aid channel should be tried to set up interoperable communications.
3. If a radio cache is available, this radio swap will promote interoperability at the required level.
4. If shared systems or common mutual aid channels above are not available to set up interoperable communications, a request should be made to make use of any gateway devices that can interconnect the disparate radio systems of the agencies involved at the highest level of operational command. Dispatch will identify any available resources.

Medical Care Group

The Medical Care Group may need interoperable communications resources for directing triage, treatment and transport efforts. Interoperable communications will be tried in the following order:

1. If the Medical Care Group agencies are users of a shared system, that system will be used to set up interoperable communications.
2. If the Medical Care Group agencies do not have a common shared system, the use of a mutual aid channel should be tried to set up interoperable communications.
3. If a radio cache is available, this radio swap will promote interoperability at the required level.
4. If none of the methods above is available, a request should be made to make use of any gateway that can interconnect the disparate radio systems of the Medical Care Group agencies. Dispatch and the Regional Interoperability Coordinator will identify any available resources.

Fire Service Branch

The Fire Service Branch may need interoperable communications resources for directing fire suppression efforts, hazardous materials response, and search and rescue response. Interoperable communications will be tried in the following order:

1. If the Fire Service Branch agencies are users of a shared system, that system will be used to set up interoperable communications.

2. If the Fire Service Branch agencies do not have a common shared system, the use of a mutual aid channel should be tried to set up interoperable communications.
3. If a radio cache is available, this will facilitate Interoperability at the required level.
4. If none of the methods above is available, a request should be made to make use of any gateway that can interconnect the disparate radio systems of the Fire Service Branch agencies. Dispatch and the Regional Interoperability Coordinator will identify any available resources.

Law Enforcement Branch

The Law Enforcement Branch may need interoperable communications resources for directing outer perimeter security, evacuation, explosive ordnance disposal, investigations, and traffic control efforts. Interoperable Communications will be tried in the following order:

1. If the Law Enforcement Branch agencies are users of a shared system, that system will be used to set up interoperable communications.
2. If the Law Enforcement Branch agencies do not have a common shared system, the use of a mutual aid channel should be tried to set up interoperable communications.
3. If a radio cache is available, this will facilitate Interoperability at the required level.
4. If none of the methods above is available, a request should be made to make use of any gateway devices that can interconnect the disparate radio systems of the Law Enforcement Branch agencies. Dispatch and the Regional Interoperability Coordinator will identify any available resources.

Hospital Coordination

EMS transport vehicles will use the (Example - VHF HEAR (155.340) or other fitting frequencies to communicate with hospitals and arrange for patient care.

Levels of Response: (NIMS / ICS / MACS)

When notified that a natural or man-made disaster is impending or the threat of an international crisis or hostile action increases, the AEMA will issue warning and advisories to appropriate local emergency management offices and State and Federal agencies. The State Emergency Operations Center operational activities, staffing, and warnings are based on the principles of the **NIMS**, **MACS** and **ICS** and the following five levels of response:

LEVEL V – Involves daily operations at the normal staffing level.

LEVEL IV – Involves an event likely to be within the capabilities of local government and results in only limited need for State assistance does not require involvement beyond the Regional Coordinator and several assistants.

LEVEL III – Involves any event that has the potential to develop into an emergency or disaster and will likely need the support of at least two or three State agencies.

LEVEL II - Involves an event that has become, or is becoming, an emergency or disaster and requires significant State response and possible Federal response and recovery aid (local government abilities are clearly exceeded).

LEVEL I – Involves a declared disaster, requiring an extensive State response, where the State and local government's abilities are clearly overwhelmed.

2.1.2 Municipal / County / Regional / State Jurisdictions

Each county is governed locally under a county commission form of government. Each county commission appointed a Homeland Security Point of Contact to serve as a liaison between the Alabama Department of Homeland Security and the county. Each county must also form a Homeland Security Stakeholders Committee. This committee is coordinated by the local Homeland Security Point of Contact and is made up of representatives of each emergency response discipline and each municipal jurisdiction within the county. Alabama is divided into 7 Homeland Security/ AEMA Regions. These regions are comprised of individual counties as listed in Table 2.3. The Poarch Band of Creek Indians is located in Escambia County. They have their Tribal Government in place and their communications are linked to Escambia County Emergency Response Agencies. Tribal Police Officers are cross deputized with the county and often aid the Escambia County Sheriff's Department and Atmore Police Department.



Each county has a County Emergency Management Agency located within its boundaries, usually in the county seat. In an emergency/disaster, response is coordinated with all responding agencies that fall under the Emergency Support Function (ESF) according to the county EOP. The ESF provides emergency support for the event and a representative from each agency is present in the EOC during this period of activity. All responding agency's information within each county is contained in the county EOP and Tactical Interoperable Communications (TIC) Plan.

A list of local Emergency Management Agencies is in Appendix B.

Table 2.3 Alabama Regions and Counties

<i>Region 1</i>	<i>Region 2</i>	<i>Region 3</i>	<i>Region 4</i>	<i>Region 5</i>
<ul style="list-style-type: none"> • Baldwin • Choctaw • Clarke • Conecuh • Escambia • Poarch Creek Indian Tribe • Mobile • Monroe • Washington • Wilcox 	<ul style="list-style-type: none"> • Barbour • Butler • Coffee • Covington • Crenshaw • Dale • Geneva • Henry • Houston • Pike 	<ul style="list-style-type: none"> • Bibb • Chilton • Dallas • Green • Hale • Marengo • Perry • Pickens • Shelby • Sumter • Tuscaloosa 	<ul style="list-style-type: none"> • Autauga • Bullock • Chambers • Coosa • Elmore • Lee • Lowndes • Macon • Montgomery • Russell • Randolph • Tallapoosa 	<ul style="list-style-type: none"> • Colbert • Fayette • Franklin • Lamar • Lauderdale • Marion • Walker • Winston
<i>Region 6</i>	<i>Region 7</i>			
<ul style="list-style-type: none"> • Blount • Cherokee • Cullman • Dekalb • Jackson • Lawrence • Limestone • Madison • Marshall • Morgan 	<ul style="list-style-type: none"> • Clay • Calhoun • Cleburne • Etowah • Jefferson • St. Clair • Talladega 			

2.1.3 Metropolitan Areas/TIC Plans

Table 2.4 Metropolitan Areas/TIC Plans

Metro Area (No UASI)	Regions / Jurisdictions	TICP Title/ Completion Date	POC Name	POC E-mail
Jefferson County (Birmingham, Anniston, Gadsden, Talladega) Metropolitan Area	Ala Region 7	Region 7 Tactical Interoperable Communications Plan April 2007	<u>State:</u> Art Faulkner or ALDHS E911 Coordinator.	<u>State:</u> Art.faulkner@dhs.alabama.gov
			<u>R-7:</u> Dan Long or Director	<u>R-7:</u> dlong@ccema.calthoun.co.al.us
Mobile County (Mobile) Metropolitan Area	Ala Region 1	Region 1 Tactical Interoperable Communications Plan July 31, 2007	<u>R-1:</u> <u>David Roberts</u> or COML	<u>R-1:</u> droberts@mcema.net
R7 Homeland Security Task Force Regional Response Plan (Annex F Commo)	Ala Region 7	R7 Homeland Security Task Force Commo Plan 2006 (Annex)	<u>Allen Kniphfer</u> or Director	kniphfera@jccal.org
All Counties within Alabama are developing their own Tactical Interoperable Communications Plan (8/31/2007)				

Alabama does not have a designated Urban Area Security Initiative (UASI) area. The adjacent map shows Region 7 as the only metropolitan area in the state with a “SAFECOM certified” Tactical Interoperable Communications Plan. This plan was approved by ICTAP/SAFECOM in the fall of 2006 during race weekend at Talladega Superspeedway. Jefferson County, within this region, has its own Tactical Interoperable Plan in coordination with its Regional Homeland Security Task Force. The City of Mobile in Region 1 has its own Tactical Interoperable Communications Plan also but neither has been certified by SAFECOM.



2.2 Participating Agencies and Points of Contact

The participating agencies involved with developing the statewide plan were selected by identifying a cross section of emergency response agencies and jurisdictions with responsibilities during a crisis or event. These agencies represent disciplines and jurisdictions from throughout the state. Participants also represent various skill sets. Some participants were agency leaders, communications personnel, or frontline first responders. Communications points of contacts were identified for each county and state agency. These POCs gathered information for the TICPs and submitted that information to include in this plan. Nongovernmental public safety agencies also took part in the planning.

Meetings were held in Montgomery in July and August of 2007 with representatives of a cross section of the state including county agencies, multi-disciplines, nongovernmental agencies, all taking part in developing this plan with their input. The first meeting involved the **SEIC** and its members, who are listed **Appendix A**. The other meetings involved the statewide **Communications Point of Contact (POC)** and the **SEIC Working Committee**. The SEIC Working Committee took part in the ICTAP Workshop, a two-day event that provided information for this plan from each entity attending. This committee was the primary source of regional focus for data gathering for the statewide plan. The SEIC and Working Committee have reviewed this plan in its entirety and have signed off for its approval.

Note: The Region 7 Homeland Security Task Force (R7HSTF) meets every other month. The Interoperable Communications Committee provides input on communications in the region and therefore has provided input to this statewide plan. For more information on this committee and its input, contact Allen Kniphfer, Jefferson County EMA Coordinator, 205 254-2039.

A list of the agencies, their representatives and county Communications Points of Contact (POC) is provided in Appendix D.

2.3 Statewide Plan Point of Contact

Art Faulkner (Not a Full-Time SIC Coordinator)
State 911 Coordinator / Communications Officer
Alabama Department of Homeland Security (SAA)
2 North Jackson Street, Suite 200
PO Box 304115
Montgomery, AL 36130-4115
(334) 956-7272 Office
(334) 223-1121 Fax
(888) 390-0133 Cell/Blackberry art.faulkner@dhs.alabama.gov

Alternate:

L. Andrew Nelson
ALDHS Interoperable Communications Consultant
LANelson, Consulting
PO Box 478
Weaver, AL 36277
(256) 820-2162 Office/Fax
(256) 310-2192 Cell/Blackberry anelson43@aol.com

2.4 Scope and Timeframe

Alabama's Strategic Communications Interoperability Plan Scope is geographically statewide and covers all key entities related to emergency response, including all critical first responders. This entails a methodical approach to get a systematic interoperable process of communications including voice and data, in the event of any natural or terrorist incident. The plan will focus on various jurisdictions and disciplines, using various available communication systems to complete effective interoperable communications. **The plan covers a timeframe of three years.**

The Alabama Department of Homeland Security (ALDHS) will manage the PSIC Grant Program and the Statewide Interoperable Communications Planning Initiative. The Director of ALDHS serves as the State Administering Authority (SAA) and is the Chairperson of the State Executive Interoperable Communications (SEIC) Committee.

The SEIC will request projects from state, local, tribal and nongovernmental agencies that support the initiatives outlined in the Statewide Communications Plan. A technical subcommittee will review these projects, and recommendations will be made to the full committee. All approved projects will support the statewide initiatives in the Interoperable Communications Plan.

PSIC grant requirements and initiatives will be addressed throughout the planning process and in the Statewide Interoperable Communications Plan. Some of the initiatives, such as Enhancement of State, Regional, Tribal and Local Governance Structures and Virtual-Alabama, will be used to further improve the Statewide Plan and will be funded through the PSIC Grant. The planning process and initiative/project selection will be coordinated through the SEIC and the SAA. The SAA will ensure all expenditures are valid under the PSIC Grant Guidance.

Critical Planning Elements:

- This plan will focus on identifying all frequencies and radio systems available statewide. ALDHS has issued each county and state emergency response agency a TICP template to be used to gather this information with other key data. Most of this information has been received and included in this plan. **Reference the Alabama Communications Resource Document for complete details of the local and state agency information.** This document provides details for each participating agency's communications system(s).
- All counties have gateways that provide interoperability between existing systems. Mutual aid frequencies are available and should be programmed into responder radios. If these frequencies are not programmed into the radios, the plan will stress the importance of this and will require it for future funding purposes.
- This plan will identify spectral assets that are available for use. Existing Mutual aid and interoperability frequencies will be identified and listed for programming use. The use of these frequencies will be encouraged for all agencies. It is

important this criterion be carried out and the frequencies be programmed into each first responders radio.

- This plan will highlight strategic interoperability and not tactical. Tactical will be stressed in the local TIC Plans currently under development. It is important to underline intraoperability as well as interoperability as being the scope of this plan.

(Note: The above critical communications items in detail are listed in the plan under Section 4 and 4.2)

Milestones

With consideration for all parts of the scope of this statewide plan, new standards will exist with which all agencies must comply. Funding will be measured by their compliance and, in turn, will create a new day for interoperable communications for the State of Alabama.

The following milestones will be used to measure successful implementation of the statewide plan and PSIC Grant funding.

1. Formation of Interoperable Communications Technical Committee
2. Submission and review of local/regional interoperable communications projects
3. Development of technical specifications needed to carry out initiatives
4. Selection of technology to accomplish initiatives
5. Implementation of plan and PSIC Initiatives

3 Methodology

Alabama sought input from various state, tribal and county emergency response agencies during the statewide planning process. Each county has an identified a County Communications Point of Contact (POC), responsible for interaction with the region and state involving the matter of communications. This person might be the EMA Director, 911 Director, COML, or a knowledgeable communications person in the county. These individuals will interact with each other regularly, which will result in better coordination and information flow within and between the counties and their agencies. This flow of information is especially important between different disciplines, as this has been a continuing concern for years.

In an effort to help and encourage each county to draft its own Interoperable Communications Plan, templates were sent to these agencies with the offer of support with plan development. This template serves as a guide for the agency to follow to ensure relevant information for their individual plans is included. It will go with the statewide plan as well. Each county's information will be available in the Alabama Communications Resource Document.

Cross-jurisdictional and cross-disciplinary members that comprise the governing body for communications within their responsibility represent the SEIC, Regional, and County Governance Committees that were formed because of these TIC Plans. Bringing these agencies together will promote cooperation and cohesiveness, which has been deficient in the past. Responding to incidents and working together smoothly will be the wave of the future for these agencies. This new approach of "one team" has removed turf battles and egos and has created an atmosphere of getting the job done. This is just one result of the TICP planning by local committees.

Nonpublic safety and nongovernmental agencies are taking part in developing this state plan. Agencies such as the Alabama Department of Transportation, Alabama Department of Public Health, Alabama Department of Corrections, Alabama State Fire Marshall's Office, Red Cross, Alabama Power Co, and others, are just a few agencies involved. Alabama Poarch Creek Indian Tribe has also joined in drafting this state plan. Alabama's military installations are another resource for communications. A large military installation Ft. Rucker is found in south Alabama in Dale and Coffee County, and interoperability is carried out by cooperation with the cities of Ozark, Alabama, and Enterprise, Alabama, which is next to this site. The Alabama National Guard has a 46th Civil Support Team that responds as needed and is interoperable when on-site. The team supplies communications support during race weekend twice a year at Talladega Superspeedway, among other settings.

PSIC Funding will be used according to federal guidance to provide improvements to all levels of communications throughout the state. All local initiatives that benefit from this funding will support the statewide plan. This will promote compliance, compromise and consistency throughout the state.

After implementation of the statewide plan, governance committees will continue their efforts to ensure communications needs are met with timely and effective solutions. Regularly scheduled meetings will be the order of business by the SEIC for their roles as well as regional and county committees. Formations of these committees as well as the SEIC are one of the most aggressive steps towards interoperable communications throughout the state's history. With this effort gaining momentum, and the results of its charters showing commanding results, these committees should grow and expand in their interest and responsibilities. It would not be surprising to see many subcommittees formed from this effort in the communications arena and other areas important to the first responder community. Planning for such as exercises, equipment purchases, legislative initiatives, training, are just some of the activities that will keep this interoperable communication effort in the forefront.

The following information outlines meeting dates, attendees, and topics of discussion about the statewide planning initiative and PSIC investment development by the Alabama Department of Homeland Security.

First Meeting of the State Executive Interoperability Committee (SEIC):

May 21, 2007

Alabama Department of Homeland Security
2 North Jackson Street
Montgomery, AL
First Floor Meeting Facilities

List of Members:

Alabama Alcohol Beverage Control Board
Alabama Association of Emergency Managers
Alabama Association of Public-Safety Communications Officials
Alabama Association of Volunteer Firefighters
Alabama Chapter of National Emergency Number Association
Alabama Department of Agriculture and Industries
Alabama Department of Conservation and Natural Resources, Assistant Chief
Alabama Department of Conservation, Associate Commissioner
Alabama Department of Conservation, Commissioner
Alabama Department of Corrections
Alabama Department of Homeland Security
Alabama Department of Public Safety, Communications
Alabama Department of Transportation
Alabama Emergency Management Agency, Director
Alabama Emergency Management, Communications
Alabama Fire Chief's Association
Alabama Forestry Commission / Fire District, Commissioner

Alabama National Guard
Alabama Police Chief's Association
Alabama Sheriff's Association
APCO
Director, Cullman County E-9-1-1
State Fire Marshall's Office, State Fire Marshall

Minutes and Detailed Attendee Information List in Appendix E

**Second Meeting of the State Executive Interoperability Committee (SEIC)
ICTAP Kick-off Meeting**

August 8, 2007
Alabama Department of Home Security
2 North Jackson Street
Montgomery, Alabama
First Floor Meeting Facilities

Minutes and Detailed Attendee Information List in Appendix F

ICTAP Workshop "Working Committee" First Meeting:

August 13-14, 2007
Alabama Department of Home Security
2 North Jackson Street
Montgomery, Alabama
First Floor Meeting Facilities

Minutes and Detailed Attendee Information List in Appendix G

County and Tribal Governance Committees

Now each county and Poarch Creek Indian Tribe, in development of its own TIC Plan, has its own Governance Committee, which, in turn, is a member of the Regional Governance Committee. Local and regional communications is under the governing body/responsibility of these respective committees.

Governance Committees from each county/tribe are listed in Appendix C.

4 Current Statewide Assessment

State of Alabama Interoperable Communications

Background:

Individual first responders and emergency personnel typically have their own radio communications systems. The problem is that those systems use different radio frequency ranges and electronic protocols that are not compatible. These responders are using disparate radio equipment on similar missions.

As a result, these individuals are not able to communicate personnel using a different system. In the past, there were only limited Mutual Aid frequencies and no Interoperable Frequencies.

Two distinct frequencies will be used in this plan: Mutual Aid (M/A) frequencies and Interoperable (I/O) frequencies. These frequencies are further broken down into user specific groups.

Mutual Aid frequencies are used between like entities such as law enforcement or fire services. These are existing frequencies and have been available for years. These frequencies have been programmed into the responder's radios. The regional communications vehicles will be able to connect various Mutual Aid and I/O frequencies through gateways to other radio systems. Interoperable frequencies are also used to communicate between responders and the regional communications vehicles.

The Alabama Mutual Aid Communications Committee's Interoperable Communication recommendations are included in this plan.

Purpose:

The purpose of Interoperable (I/O) Communications is to provide voice communications between federal, state, county, tribal, and local responders during disasters, using the responders own radios (when possible).

Interoperable Communications will be performed using pre-programmed and coordinated frequencies. VHF frequencies will be available to all users for simplex use. UHF frequencies are repeater pairs and work using portable repeaters found at the scene.

These frequencies and frequency pairs should be used only during times of disasters and are not intended for routine purposes such as dispatching and day-to-day use.

Concept / Continuing Present State:

There is a standard set of frequencies available and programmed into most responder's radios. These I/O frequencies are coordinated statewide and are available for use during disasters. These frequencies are simplex and repeater pairs. This method allows responders to communicate on common frequencies at any disaster site without the need of a repeater.

Portable/mobile I/O equipment is available to connect individual radio systems together on site. This method allows responders to use their existing simplex frequencies programmed into their radios to allow system interconnection.

I/O frequencies are programmed into state and local responder's radios and at county EMA offices to allow point-to-point communications. A UHF repeater is available through each of the seven regional vehicles (and the other state vehicles) to provide immediate communications at the disaster site.

Local agencies are working toward total interoperability with other agencies in their area of response. Regional interoperability remains the current and most important challenge. This plan will address those needs and the resulting initiatives will be one of the future emphases of communications throughout the state.

SOPs being developed by each county's TIC Plan are consistent throughout the state. First responder agencies using these SOPs are encouraged to develop each to their own criteria, but to ultimately remain in close proximity with other agencies.

Request for Interoperable Support:

Requests for interoperable equipment and support are initially made to the Incident Commander.

The order of communications support will be:

1. Local communications systems
2. Local county interoperable equipment
3. Regional Communication Vehicle support
4. State Communications Vehicle and transportable support
5. Federal communications support

Typical Scenarios:

There are three typical scenarios listed below. The level of support is directly proportional to the intensity of the disaster, the number of responders, and the availability/condition of the normal (local) communications systems.

Local Disaster Support:

A local disaster that involves only local responders will use their normal communications systems and the M/A frequencies. If this is not enough, the Regional Communications Vehicle supporting the area will be sent and provide temporary support.

Regional Disaster Support:

A regional disaster will use the Regional Communications Vehicle. If this is not enough, more regional vehicles will be sent to the scene.

Larger Scale Disaster Support:

AEMA will provide added communications equipment as needed when the local and regional resources are expended. This equipment is stationed at Clanton and Tuscaloosa.

Programming:

The Federal Communications Commission has mandated that future radio system equipment must be “narrowband capable.” Old VHF conventional radios are not able to accept these “narrowband” I/O frequencies. Most of the older UHF radios are “wideband” and “narrowband”. The new radios available today are narrowband capable and can accept all the I/O frequencies.

Other state agencies, county entities and local municipalities are programming I/O frequencies into radios as they are replaced. If the existing radio is narrowband capable, the I/O frequencies are routinely programmed.

Authority is granted to nonstate shops to program I/O and M/A frequencies by the signed frequency use agreement.

State Dispatch Systems / Frequencies

The following pie charts and maps show the different communications systems by county. The disparity between systems is handled chiefly by the JPS ACU-1000 Gateway, which each county has in place. This facilitates bridging between these different systems in a manner that provides and strengthens real time communications and on demand.

Fig. 3.1 Statewide LE Dispatch Freq

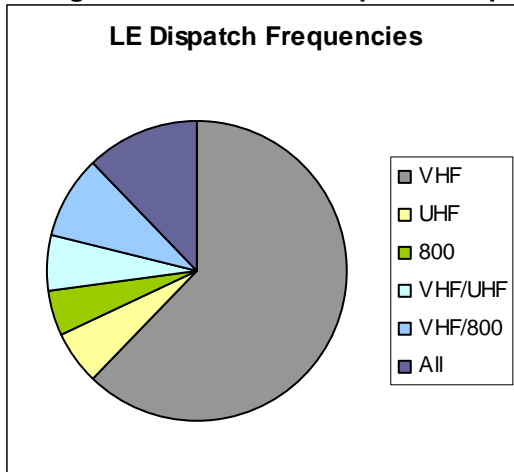
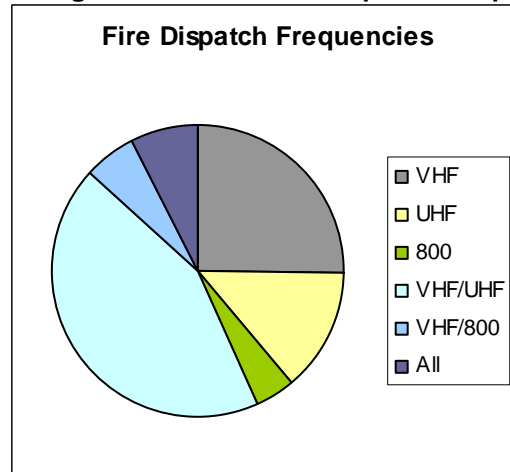
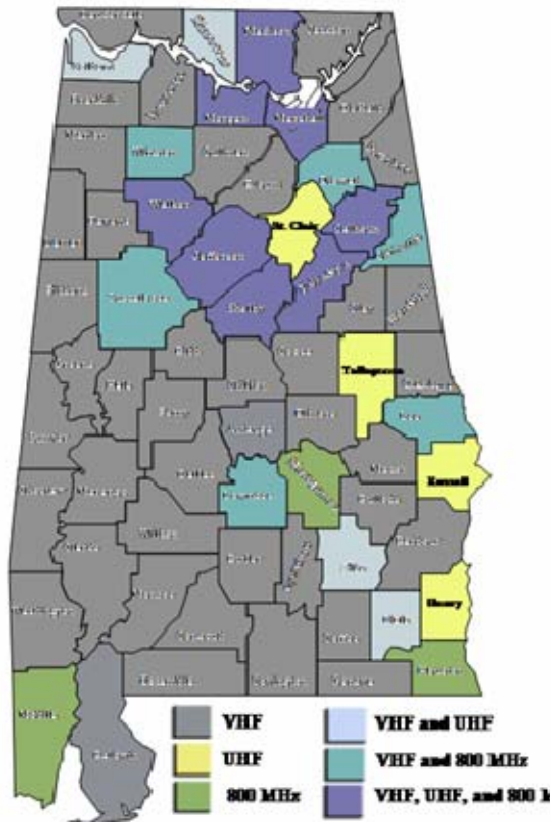


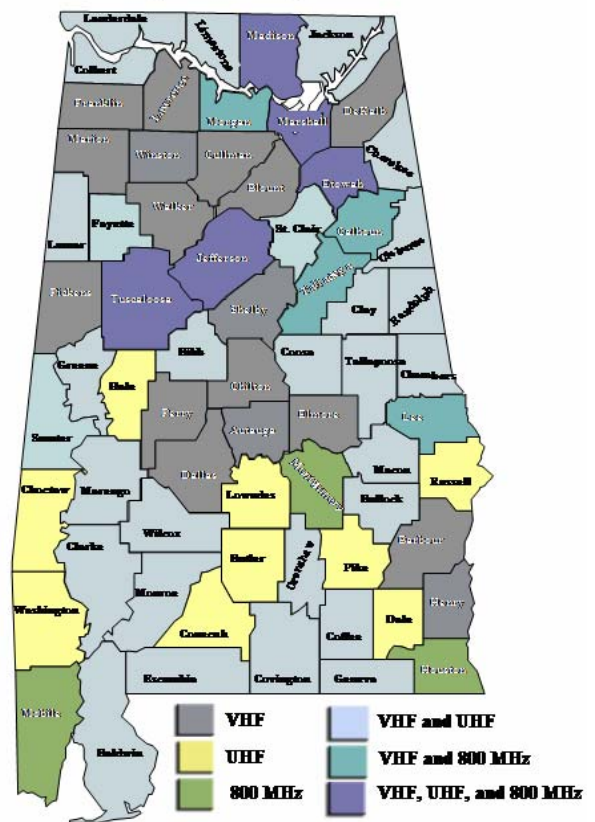
Fig. 3.2 Statewide FD Dispatch Freq



Law Enforcement Dispatch Frequencies



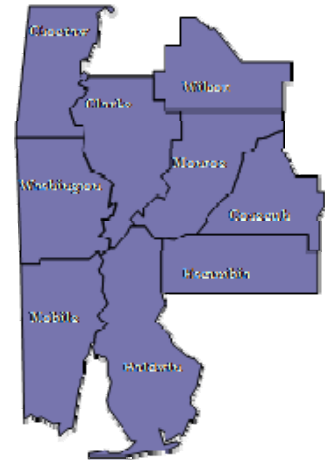
Fire Dispatch Frequencies



4.0.1 Description of Interoperable Capabilities by ALDHS Regions

Region 1:

This region of the state's southern border is situated on the Gulf of Mexico. The largest city in this region is Mobile. Interoperable Communications in the city and its surrounding county is robust. An 800 MHz Trunking system is in place and provides total interoperability among all first responders in the area. This covers the city and the county. Communications with adjoining counties in Mississippi are in place also. Interoperable frequencies are in place and in use. Mobile has its own Communications Response Vehicle, as well as the ALDHS Regional Communications Vehicle.



Baldwin County in particular, has both UHF and VHF frequencies. 800 MHz radios have been supplied by the state, are available for use, and involved in the ACU-1000 gateway use.

All the counties in this region use both VHF and UHF frequencies, with VHF being the most. With a gateway provided to each county, bridges can be made at-will to allow these disparate systems to communicate with one another. Some counties have I/O frequencies programmed into their radios, and some do not. Some counties have a small radio cache and some do not. A state plan to have a large radio cache is being procured. This cache will be stationed at the state EMA EOC, charged and ready for use if/when needed.

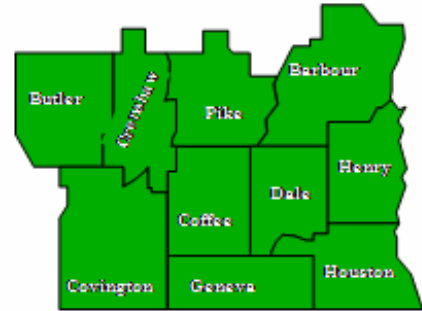
A couple of counties in the northern section of this region do not have good communications ability. Several new repeaters are being evaluated for installation to improve this. SouthernLINC is used extensively in the entire region. Wilcox County would have the least communications coverage in this region. Terrain is the main issue in this area. Three AEMA UHF repeaters are in the region. Two in Baldwin and one in Clarke County.

Escambia County contains the State's only federally recognized Indian tribe. The **Poarch Creek Indians** have their own Emergency Management Agency with direct communications to other Escambia County agencies. They have their own Volunteer Fire Department dispatched by a VHF repeater found within the reservation. Agencies outside the reservation maintain other VHF repeaters to have interoperability with other agencies as well as the reservation.

Note: In reality, six areas (within Regions 1, 2, 3, 5 and 6) need better repeater coverage.

Region 2:

Region 2 is found in the southeast corner of Alabama. Three counties border Florida and three counties border Georgia for ten counties in the region. This largest city in this region is Dothan. One of the State Regional Communications Vehicles is stationed in Dothan. It can be readily deployed to any county in the region and to other regions if/when needed. Houston County is going to a new system that will improve communications in this area. The city of Dothan and Houston County are on a shared system, and, after the transition, new radios will be bought and communications within this area will improve. An aggressive time-line is being followed.



One of the new State UHF repeaters has been installed in Covington County, which improves coverage for this region. However, there are communication dead spots remaining. Three AEMA UHF repeaters are in Region 2: Crenshaw, Covington and Houston County. An added site is needed in the NE corner of the region for better coverage in that area.

Some of the counties in this region have a small cache of radios, but most of the counties do not. SouthernLINC is used extensively in this region also, but the southern part of the region has some poor areas of reception/transmission. Most of the frequencies in use are VHF, which is typical of small town radio systems that have been in place for many years.

Several different gateways are available within this region. The main gateway is the JPS ACU-1000 that was provided by the state. The frequencies (numbers) most used are VHF, which is, again, typical for most regions in Alabama. In most counties in this region, Law Enforcement uses VHF and UHF is used by Fire Departments. Some Volunteer Fire Departments use UHF repeaters that are also used by the State Forestry Department. They have many tower sites throughout the state. There are several shared frequencies in some counties that share a common repeater. This is a core of I/O communications. Small town or State Net frequency 155.01 is licensed for Alabama and is used extensively by all counties in the region.

Region 3

Region 3 consists of 11 counties in the west central part of the state. Three of the counties border on the state line with Mississippi and have frequencies set up in their systems to communicate across the state line when needed.

Tuscaloosa is the largest city in this region and has the most robust system. In addition, large communications and rescue equipment from the state and from the county are stored at the County Sheriff's Office (hangar at the airport). This equipment can be deployed to any area throughout the state or out of state if/when needed. Thorough training of special response teams is an excellent asset to this area and to the state as a whole.



Two AEMA UHF repeaters are in the region: Tuscaloosa and Sumter County. An added site is needed in the southern area of the region for better coverage in that area. Most counties have their own system of repeaters, which enable acceptable communications. A few because of financial restraints have a simplex system only. Most counties have I/O frequencies programmed into their radios. All frequencies in this region are mainly VHF with some UHF. UHF is used by Fire Departments and with Forestry Repeaters. Several county Fire Departments, both paid and volunteer, use UHF served by the Forestry Department repeaters. This is common in all regions. SouthernLINC is used extensively throughout this region.

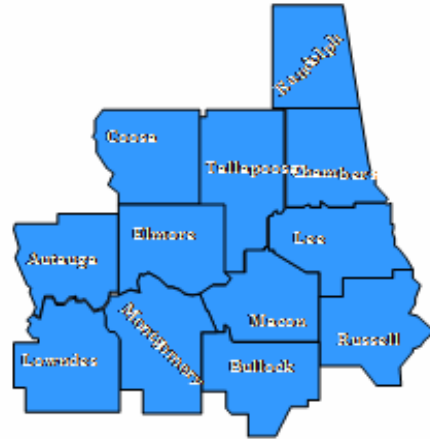
At least two counties in this region are conventional systems with one repeater. These systems have Mutual Aid Channels programmed into their radios, which provide good I/O Communications. Several have an 800 MHz Radio tied into their ACU-1000, in case someone comes in with that system. The ACU-1000 is used as the sole gateway in these counties. Radios tied into this equipment provide I/O communications as needed. This gateway is stationed at the EMA, E 9-1-1 or Sheriff's Office, depending on 24-hour dispatchers. One county (Greene) in particular is having a new Emergency Management/E 9-1-1 building built, where the required antennas will be installed and the gateway can be used.

Shelby County is the next larger populated county in this region. This county has all three frequencies available, but VHF is mainly used at this time-, which makes interoperability rather simple. The major problem with coverage in this county is because of the mountainous and hilly terrain. The county co-locates on Jefferson County's 800 MHz tower, which is found in the county. A couple of Shelby County cities are partly in Jefferson County also and therefore benefit from this.

A few radio caches are available in this region, specifically in Tuscaloosa, Sumter and Shelby Counties.

Region 4

This region is found in the east central part of the state, with four of the twelve counties comprising this area of Georgia. Most of these counties are rural in nature and have anything from simplex systems exclusively to the multiple use of a repeater in a select town within the region. The state EMA has two UHF repeaters in this region (Lee and Elmore County) and the ability to bridge with each county's ACU-1000, which provides communication to state agencies as well as local agencies. It is important to remember the state



UHF backup repeater system has a link in each county, even though most of the frequencies in use are VHF. This is an example of the lack of funds to allow upgrades for systems to UHF and higher frequencies with digital or analog preferred. Because of this funding scenario, there are many situations where law enforcement agencies and fire responders use the same frequencies, and these would usually be simplex systems.

Most of the counties use VHF with some use of UHF for most Volunteer Fire Departments in reference to forestry repeaters in use. An 800 MHz trunked MA/COM system is in use in Montgomery County, and the surrounding counties have a link on their gateway to this system. Seven of the eight counties that surround Montgomery County use the State Net Frequency as their main communications source. Again, SouthernLINC is a common system in use throughout the region.

Note: Each county EMA office has SouthernLINC equipment, both fixed and portable. This system has the choice of connecting different fleets (cross-fleet) on the newer portable radios, and that, in itself, is a form of I/O communications.

Several radio caches are available in different parts of the region and some are programmed with M/A and/or I/O channels.

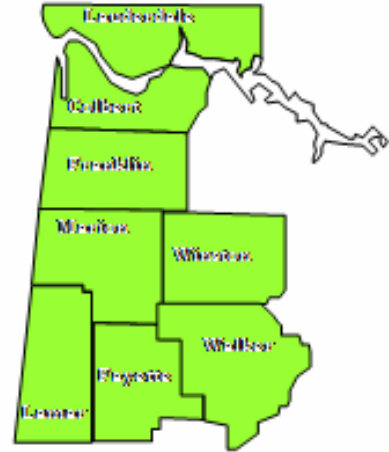
Gateways are in each county with a few having another bridge available. These added bridges are console bridges that can tie two frequencies together, but no adjustments are available for fine-tuning of the transmissions. Part of the early transmission can be cut off, as for example, you would not think about going through a couple of repeaters.

Montgomery and Opelika/Auburn are two of the larger cities in this region. Both of these cities use 800 MHz Motorola Trunking systems. These areas are in good shape both in coverage and interoperability, as this EDACS system allows multiple shared systems with the city and county. Phenix City is in this region also. The nearness to Columbus, Georgia, and Fort Benning add extra challenges to interoperability. There is an Office of Homeland Security/Emergency Management (OHSEM) in Phenix City. This office is equipped with a larger cache (29) of radios than is provided in other

counties. This center is a “hub” of emergency activity for this part of the region. All of Phenix City is on UHF, with the rest of the county on VHF. Both SouthernLINC and Nextel are in use in Phenix City.

Region 5

This region consists of eight counties found in the northwest corner of the state. Five of the eight counties in this region border on Mississippi with one of these bordering Tennessee also. Communications relations to Mississippi and Tennessee are common. A VHF low band radio/frequency is available in some of the counties in this region for communication with Mississippi counties. Most counties in Mississippi below the city of Meridian have low band in use.



This region is typical to the others in that most law enforcement use VHF conventional radios and the fire departments, use, UHF, which are on forestry owned repeaters. This region has an area called the Quad-Cities: Florence, Muscle Shoals, Tuscumbia and Sheffield. Three cities use UHF, and all Volunteer Fire Departments are paged. Tuscumbia is in one of the areas that does not have enough coverage because of terrain. The central part of this region has the least coverage. Florence, in Lauderdale County (Region 5) has the only repeater for this area. Two more sites are needed in the west and central sections for better coverage in the area.

Florence, in Lauderdale County is one of the major cities in this region. The radio system in this location is mainly VHF and SouthernLINC. The Florence Police Department uses UHF repeaters, UHF tactical channels, and Nextel. The Lauderdale County Sheriff uses a VHF repeater system and SouthernLINC. While not typical of the other counties, this shows the difference in funding available for communications in different locations. This region also houses the State DHS Region 5 Communications Vehicle. With the addition of the vehicle, this county has two gateways available for use. This county's southern border is the Tennessee River, so Marine Band capability is also present.

Region 6

Region 6 consists of 10 counties in the northeast corner of the state. Three counties border Tennessee, and three border Georgia. The Tennessee River runs through the center of this region. River traffic is plentiful, as the series of dams/locks allow river transportation readily. A good relationship with the TVA is necessary, as all these locks and dams are controlled by them.



Interoperable communications are a continuing process in these areas.

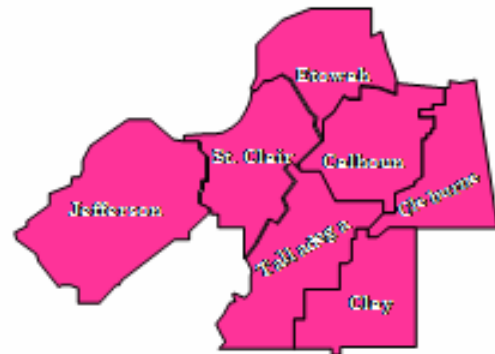
The regional UHF repeaters are in Cullman County and Madison County. An added site is needed in the NE section that may be funded by the TVA Nuclear Power Plan that is opening in Jackson County. A limited amount of radio caches are spread throughout the region, with most counties having none available.

Most agencies are on VHF while fire departments on UHF. Again, this is because of forestry towers/repeaters. This is most common across Alabama. An ACU-1000 gateway is in every county to connect disparate systems as needed. Both SouthernLINC and Nextel are used as “push-to-talk” service throughout this region. SouthernLINC gives the choice of having “talk groups,” like an 800 MHz System Talk Group System, where Nextel does not. This feature is used extensively throughout the state EMA agencies. There is a VHF low band in this region and is linked by several bridges and repeaters. One city in this region (Albertville) uses an 800 MHz Motorola Type II Trunked System.

Note: Limestone County lists more UHF frequencies than VHF. This county has added the Mutual Aid and Tactical Frequencies are well. Browns Ferry Nuclear Plant is in this region. This area has benefited from its presence in the form of financial aid with communications and other efforts, which is obvious in the UHF majority.

Region 7:

The Alabama Department of Homeland Security Region 7 Area consists of Calhoun, Clay, Cleburne, Etowah, Jefferson, St. Clair, and Talladega Counties. One county borders Georgia. Major cities found within this area include Birmingham, Anniston, Gadsden, Pell City and Talladega. The Anniston Army Depot, which is home to Anniston Chemical Activity and Anniston Chemical Demilitarization Facility, is found in southwestern Calhoun County. Talladega Superspeedway facility is found in northern Talladega County, immediately next to Interstate 20.



Talladega Superspeedway facility is found in northern Talladega County, immediately next to Interstate 20.

The Birmingham metropolitan area has five shared radio systems supporting public safety operations. Systems working in the area include one 800 megahertz (MHz) M/A-COM Enhanced Digital Access Communications System, three 800 MHz Motorola SmartZone™ systems, and one ultrahigh frequency statewide repeater system. Birmingham and Jefferson County now use one system known as Birmingham/Jefferson County SmartZone System. There are three AEMA UHF repeaters in this region: Etowah, Jefferson and Cleburne Counties.

Major radio systems in this area include the Calhoun County/Talladega County Simulcast SmartZone Motorola 800 MHz System, the City of

Birmingham Simulcast Trunking Motorola 800 MHz System, Birmingham/Jefferson County Simulcast Trunking Motorola 800 MHz SmartZone System, and the City of Gadsden EDACS system.

Agencies not using one of these systems use VHF (high-band) or UHF conventional radio systems. Nextel and SouthernLINC are also extensively used by agencies. Most routinely rely on the SouthernLINC commercial wireless system to provide law enforcement and public safety officials with voice and data wireless communications. Regional interoperability is achieved with shared systems, shared channels, gateways and cached radios.

Region 7 System Upgrade Description

The Calhoun/Talladega County simulcast Motorola Chemical Stockpile Emergency Preparedness Program (CSEPP) radio system that was installed in 1997 has recently undergone a system upgrade from the SmartZone 3.0 to the SmartZone 7.1 platform. This is classified as an Association of Public Communications Officials (APCO) Phase 1 compliant digital technology.

The simulcast system utilizes the two counties' twenty 821/806 MHz frequencies over a wide geographic area. There are seven simulcast sites, 2 Intelligent Repeater (IR) sites (under construction currently) and thirteen 6 GHz single DS3 microwave network that uses the six 800 MHz RF sites, six microwave-only sites (*the two IR sites under construction will also serve as microwave sites*), and Calhoun County's Master/Prime Site.

The 800 MHz sites are:

- Bankhead
- Blue Mountain
- Chimney Peak
- Coldwater
- Fort Earl
- Kahatchee
- Renfro

The microwave-only sites are:

- The new Talladega County E911 co-located dispatch
- Calhoun County E911
- Oak Mountain
- Woods Hill

The two IR sites are:

- Bald Mountain

- Buena Vista

The Master/Prime site is in the Calhoun County Emergency Operations Center.

The system also supports the Whelan Outdoor Warning Siren network and WSI Tone Alert Radio network in the counties.

The system subscribers units have been setup into operational groups or talkgroups on the radio system infrastructure. The system- wide fleet mapping was designed with flexibility in mind, which allowed for creating mutual aid and special event talkgroups. This sets up interoperability without the need of reprogramming units.

4.0.2 Interoperability Projects - Statewide

This section outlines interoperability projects that are continuing throughout the State of Alabama. These projects support the strategic vision of achieving interoperability at the local, regional and state level. These projects have been funded with local, state and federal dollars. Some of these projects will be presented for funding through the PSIC Grant Program. **See Section 5.4 for more details on the PSIC Investments.**

FCC Region 1-Alabama Interoperability 700 MHz Channels Project¹

Introduction:

Interoperability is a major concern for public safety agencies. Occasionally, there is a need for multiple agencies to respond to disasters such as tornadoes, hurricanes, floods, fires, and now the threat of terrorist activity. As a result, Mutual Aid agreements have been created for Public Safety agencies to help other jurisdictions regardless of distance.

This plan/project will allow Alabama public safety agencies to move to the 700 MHz spectrum when it becomes financially possible. **This project is a strategic initiative for the State of Alabama.** Many agencies are now trying to modernize existing communications by establishing interoperability capabilities and increasing existing means by adding modern equipment. The first position of this plan is to allow for an open filing window based on channel shares for each of Alabama's 67 counties.

A timeline does not exist to estimate moving agencies toward Alabama's migration to the 700 MHz spectrum. This plan will allow for a smooth transition to the 700 MHz band.

Simplex On-Scene Statewide 700 MHz Tactical Channels

The State suggested vision includes fifteen simplex, M/A analogs, on-scene channels, with common labels dedicated to the mitigation of emergency operations in 700 MHz for use statewide. These fifteen channels must be installed in all radios working on 700 MHz statewide. They are as follows:

Table 4.1 700 MHz Freq

15 Channel Sets	Description	Label
Channel 983 & 984	<i>Simplex on Scene Statewide IO Channel</i>	MA-TAC01
Channel 1063 & 1064	<i>Simplex on Scene Statewide IO Channel</i>	MA-TAC02
Channel 1143 & 1144	<i>Simplex on Scene Statewide IO Channel</i>	MA-TAC03
Channel 1223 & 1224	<i>Simplex on Scene Statewide IO Channel</i>	MA-TAC04
Channel 1079 & 1080	<i>Simplex on Scene Statewide IO Channel</i>	MA-TAC05

¹ Although the 700 MHz requirement with the PSIC Grant has been removed, Alabama is in line with the implementation of this project through its 700 MHz Statewide Committee.

State of Alabama
2007 Strategic Communications Interoperability Plan

Channel 1159 & 1160	<i>Simplex on Scene Statewide IO Channel</i>	MA-TAC06
Channel 1023 & 1024	<i>Simplex on Scene Statewide IO Channel</i>	MA-TAC07
Channel 1103 & 1104	<i>Simplex on Scene Statewide IO Channel</i>	MA-TAC08
Channel 1183 & 1184	<i>Simplex on Scene Statewide IO Channel</i>	MA-TAC09
Channel 1263 & 1264	<i>Simplex on Scene Statewide IO Channel</i>	MA-TAC10
Channel 1139 & 1140	<i>Simplex on Scene Statewide IO Channel</i>	MA-TAC11
Channel 1119 & 1120	<i>Simplex on Scene Statewide IO Channel</i>	MA-TAC12
Channel 1199 & 1200	<i>Simplex on Scene Statewide IO Channel</i>	MA-TAC13
Channel 1279 & 1280	<i>Simplex on Scene Statewide IO Channel</i>	MA-TAC14
Channel 1601 & 1602	<i>Simplex on Scene Statewide IO Channel</i>	MA-TAC15

Adjacent State Tactical 700 MHz Channels

Also, it is the State's wish to have common interoperability channels used by all agencies and bordering states. The below table is the same for Region 24 and Region 39 and will be for Region 1.

For Specific Users/Services * - Mandatory

16 Channels Sets	Description	Label
<i>Channel 23 & 24</i>	<i>General Public Safety Services (secondary trunked)</i>	<i>7TAC51/7TAC51D</i>
<i>Channel 103 & 104</i>	<i>General Public Safety Services (secondary trunked)</i>	<i>7TAC52/7TAC52D</i>
<i>Channel 183 & 184</i>	<i>General Public Safety Services (secondary trunked)</i>	<i>7TAC53/7TAC53D</i>
<i>Channel 263 & 264</i>	<i>General Public Safety Services (secondary trunked)</i>	<i>7TAC54/7TAC54D</i>
Channel 39 & 40	Calling Channel *	7CALL50/7CALL50D
Channel 119 & 120	General Public Safety Service *	7TAC55/7TAC55D
Channel 199 & 200	General Public Safety Service	7TAC56/7TAC56D
Channel 279 & 280	Mobile Data	7DATA69/7DATA69D
Channel 63 & 64	Emergency Medical Service	7MED65/7MED65D
Channel 143 & 144	Fire Service	7FIRE63/7FIRE63D
Channel 223 & 224	Law Enforcement Service	7LAW61/7LAW61D
Channel 303 &	Mobile Repeater *	7MOB59/7MOB59D

State of Alabama
2007 Strategic Communications Interoperability Plan

304		
Channel 79 & 80	Emergency Medical Service	7MED66/7MED66D
Channel 159 & 160	Fire Service	7FIRE64/7FIRE64D
Channel 239 & 240	Law Enforcement Service	7LAW62/7LAW62D
Channel 319 & 320	Other Public Service *	7GTAC57/7GTAC57D
Channel 657 & 658	General Public Safety Services (secondary trunked)	7TAC71/7TAC71D
Channel 737 & 738	General Public Safety Services (secondary trunked)	7TAC72/7TAC72D
Channel 817 & 818	General Public Safety Services (secondary trunked)	7TAC73/7TAC73D
Channel 897 & 898	General Public Safety Services (secondary trunked)	7TAC74/7TAC74D
Channel 681 & 682	Calling Channel *	7CALL70/7CALL70D
Channel 761 & 762	General Public Safety Service *	7TAC75/7TAC75D
Channel 841 & 842	General Public Safety Service	7TAC76/7TAC76D
Channel 921 & 922	Mobile Data	7DATA89/7DATA89D
Channel 641 & 642	Emergency Medical Service	7MED86/7MED86D
Channel 721 & 742	Fire Service	7FIRE83/7FIRE83D
Channel 801 & 802	Law Enforcement Service	7LAW81/7LAW81D
Channel; 881 & 882	Mobile Repeater *	7MOB79/7MOB79D
Channel 697 & 698	Emergency Medical Service	7MED87/7MED87D
Channel 777 & 778	Fire Services	7FIRE84/7FIRE84D
Channel 857 & 858	Law Enforcement Service	7LAW82/7LAW82D
Channel 937 & 938	Other Public Services *	7GTAC77/7GTAC77D

Interoperability Channels Use

Region 1 will equip state owned communications vehicles with radio equipment to support interoperability in remote locations. It will also support mutual aid task force events statewide and use national interoperability VHF, UHF channels, NPSPAC channels, or statewide mutual aid channels.

Calling Channels

The only agency that has the ability to monitor calling channels in most of areas of Alabama is the Department of Public Safety (DPS). Any Agency deploying 700 MHz spectrum must install the National Interoperability Channels at their dispatch point and continuously monitor them for emergency calls.

700 MHz Plan Implementation Statement:

Because of the current changes being proposed by the Federal Communications Commission (FCC), this plan will be changed over time to comply with new regulations. Therefore, its definite implementation schedule and plan cannot be stated now. No agencies within Alabama currently have 700 MHz programmed into their radios. With the high cost of new equipment, most counties, because of limited funds, do not have the ability to buy this equipment; thus, 700 MHz systems will be slowly completed over a long period. Gateways are provided in each county to bridge 700 MHz to present systems when fitting.

The plan is complete and filed with the FCC. The FCC is reallocating the 700 MHz band spectrums and implementation will be scheduled when right.

Project 25 Status:

Alabama, with all other states, will eventually migrate to the P25 Standard. Monetary issues now prevent wholesale implementation statewide. There is a limited effort within some counties striving to get this standard. This is one of the State's future goals.

Definition of Project 25

Project 25 (P25) is a standard for manufacturing interoperable two-way wireless communications products. The P25 standard was created by and for public safety professionals.

Developed in North America under state, local, and federal representatives and Telecommunications Industry Association (TIA) governance, P25 is gaining worldwide acceptance for public safety, security, public service, and commercial applications. The published P25 standards suite is governed by the Telecommunications Industry Association (TIA Mobile and Personal Private Radio Standards Committee TR-8).

Radio equipment that shows compliance with P25 is able to meet a set of minimum requirements to fit the needs of public safety. These include the ability to interoperate with other P25 equipment, so users on different systems can communicate by direct radio contact.

What Is Required for P25 Compliance?

At a minimum, a P25 radio system must provide interoperability with these compulsory P25 Standard components:

- The Common Air Interface (CAI) specifies how information is coded, transmitted and received over the air. It enables users to interoperate and communicate across networks, agencies, and vendors.
- The Improved MultiBand Excitation (IMBE) vocoder converts speech into a digital bit stream. Test panels judged IMBE as the coding scheme most successful at making male and female voices audible against background noises such as moving vehicles, sirens, gunshots, and traffic noise—the conditions of public safety use.

P25 has also defined standard modes of operation to enable multi-vendor interoperability for extra system functions: trunking, encryption, or over-the-air rekeying, to name a few.

What Are Alabama's Benefits of P25?

P25 has four primary objectives:

1. Allow effective, efficient, and reliable intraagency and interagency communications—so statewide organizations can easily set up interoperable and seamless joint communication in both routine and emergency circumstances.
2. Ensure competition in system life cycle procurements—so statewide agencies can choose from multiple vendors and products, eventually saving money and gaining the freedom to select from the widest range of equipment and features.
3. Provide user-friendly equipment—so users can take full advantage of their radios' lifesaving abilities on the job—even under adverse conditions—with minimal training.
4. Improve radio spectrum efficiency—so networks will have enough capacity to handle calls and allow room for growth, even in areas where the spectrum is crowded and it is difficult for agencies to get licenses for more radio frequencies.

Narrow-Banding

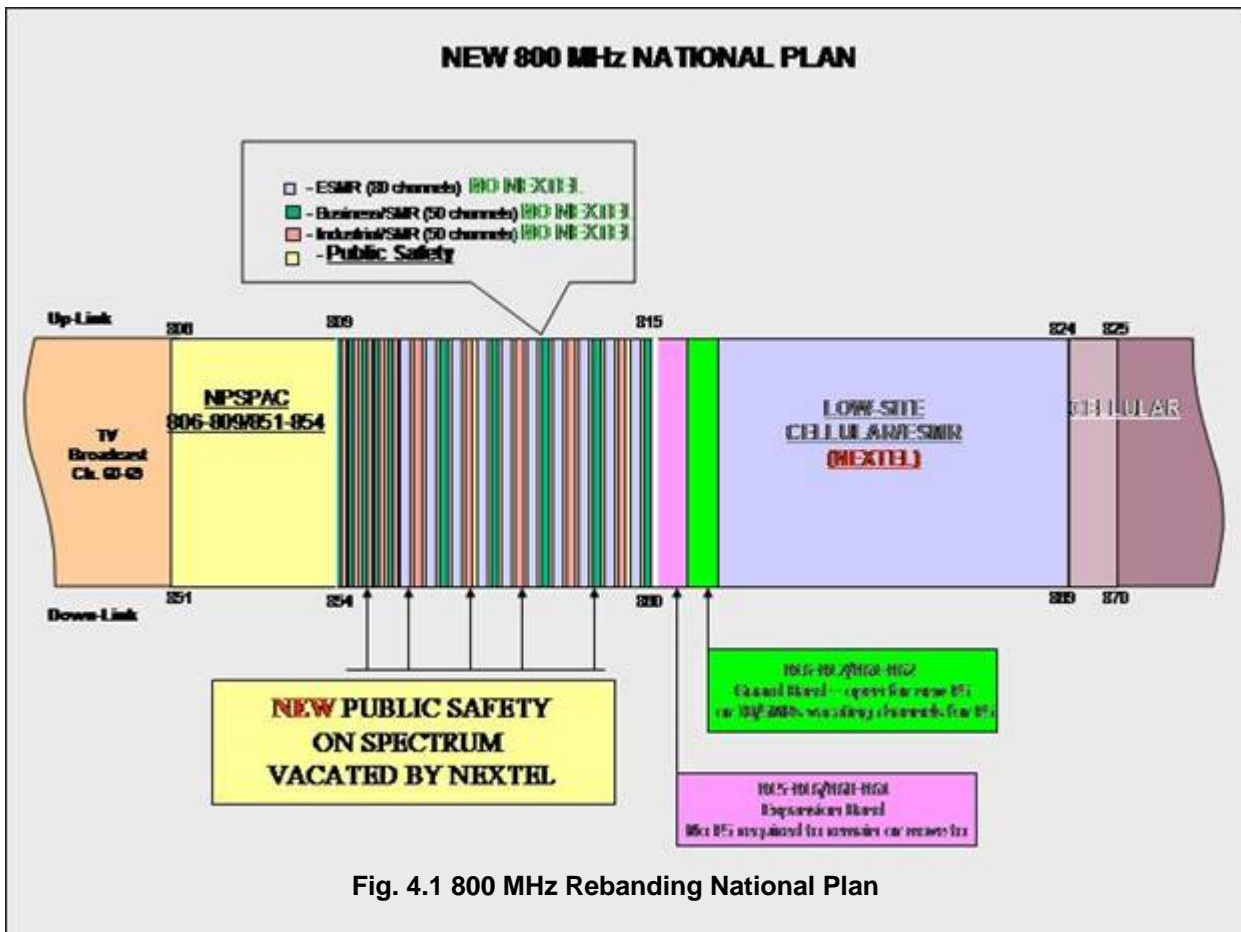
There are two phases of narrowband development:

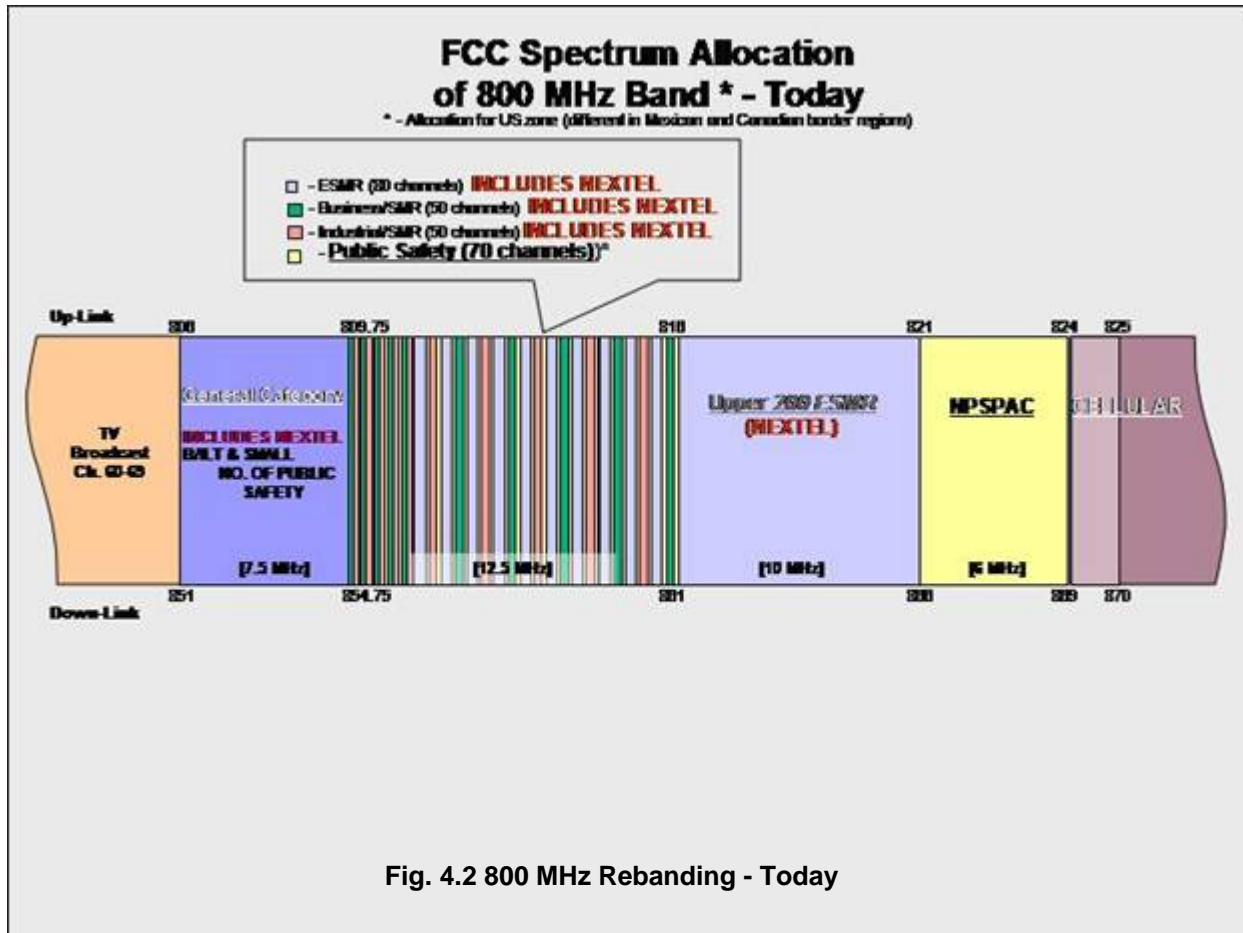
Phase 1 is completed. It specifies a 12.5 kHz bandwidth. A couple of Alabama agencies have completed this first phase of narrow banding and others will follow as scheduled.

Phase 2 is in development. It will use a 6.25 kHz equivalent bandwidth to allow better spectrum efficiency and benefit a greater number of users.

800 MHz Rebanding Status:

This process is progressing at a slow pace nationally. Alabama is awaiting decisions and further information on the specifics and will be deeply involved in the process by the 2008 time frame. Much work must be done to make this transition a smooth event.





Wide Area Interoperability System (WAIS)

The State of Alabama conducted extensive evaluation of communication technologies that would meet its immediate need to provide interoperability and operability during daily and emergency operations. The state also needed to ensure the selected technology would provide an IP based capability, allow for expansion, incorporate new and legacy systems and provide the ability to be scaleable. The state invested in the ACU-1000 Intelligence Interconnect Switch technology with the vision to set up a Wide Area Interoperability System.

The state adopted a phased implementation approach to establish the system. Initially, the state placed ACU-1000's throughout the state meeting the immediate need to provide interoperability locally and regionally. This technology best known for its bridging capabilities provides IP integration to set up a distributive interoperability network. The capabilities are not limited to bridging; it also provides access to communications resources, both LMR and telephony within and outside radio propagation and the deployment area. After first deployment locally, the Phase I implementation of WAIS focused on the Regional Command Vehicles.

The Phase I Wide Area Interoperability System (WAIS) implementation consists of eight ACU-1000 units connected over an IP Network, LAN, WAN or the internet. Each ACU-1000 has twelve (12) local communications assets, which can be radios, phones, cell phones or Network Extension Modules (NXM) - which are the backbone of the Voice-over Internet Protocol (VoIP) / Radio over Internet Protocol (RoIP) connection between the Regional Command Vehicles (RCV). Each talkpath or NXM is a potential link into the WAIS system, commanded by a WAIS Dispatch Position Operator using the WAIS Controller Software. The dispatchers can cross-connect assets at their local level (local interoperability) as well as cross-connect together assets from other RCV's (wide area interoperability). Dispatchers may also use the system to converse with one another over IP. Through IP connectivity, approved users can also access the WAIS system from other locations throughout the state. The distribute design of the system ensures local interoperability in the event of network disruption or failure as the bridging technology is neither computer nor network reliant for on-site operation. A centralized network hub, which provides VoIP/RoIP connectivity, allows all the RCV's to be connected through their satellite uplinks at the same time. Also, each RCV is equipped with a repeater to provide on-site repeated infrastructure, which can be incorporated into the wide area system.

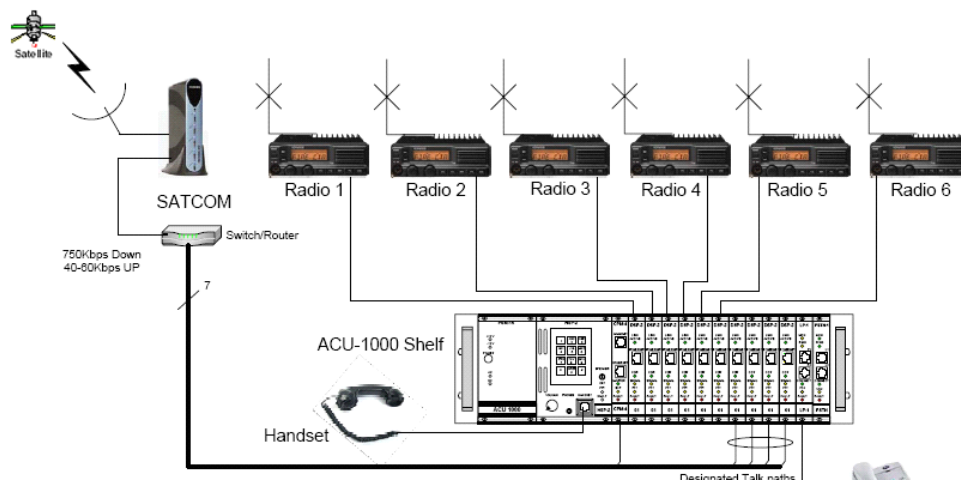


Figure 4.3 WAIS Components



Phase II WAIS implementation is under design and installation. This phase incorporates the states' fixed Local Interoperability Sites in Clanton, Calhoun, Chambers, Etowah, Houston, Lauderdale, Lee, Madison, Mobile, Montgomery and Tuscaloosa counties. The fixed infrastructure is co-located at different communication centers in these counties, the Alabama Department of Homeland Security and the Alabama Emergency Management office. Phase II focuses on the major population areas in the state and provides the ability to access their radio infrastructure locally or wide area. Use of the IP based technologies allows connectivity VoIP/RoIP between the EOCs and allows access to the Regional Command Vehicles by RF and IP.

Phase III will be a continuation of the fixed site build out, eventually linking each county or region through the WAIS system. This WAIS application is a migration means that will complement other continuing efforts to upgrade and set up new radio systems throughout the state. The system provides a seamless method to access legacy systems and future radio infrastructure. It provides redundancy through IP connectivity supporting LMR and IP voice communications, backhaul and access to radio and telephone resources anywhere on the network.

Completion of statewide system scheduled to occur within the next three years. As technology advances, WAIS systems can be adapted to new and emerging technologies. The ACU technologies are fully backwards compatible with the emerging bridging system interface standard, Session Initiation Protocol (SIP) currently under development for public safety use. They also interface with P25 radio systems.

Radio System for State-Level Agencies

The State of Alabama will direct its efforts to carry out interoperable communications among state-level agencies by consolidation of assets and resources to set up a common communications system. At the present, most agencies run on their own system and cannot effectively communicate with one another. This new venture will bring all state agencies together in a common system, and communications interoperability will reach new heights. This project will use state and federal funding for public safety communications.

4.1 Governance Structure

List of SEIC Committee in Appendix A

List of Individual County Governance Committees in Appendix C

List of SEIC Working Committee in Appendix D

Minutes from the Alabama Homeland Security Task Force Meeting on April 4, 2007, that established the SEIC are listed in Appendix G

The Alabama Statewide Executive Interoperability Committee (SEIC), established by Jim Walker, Director, Alabama Department of Homeland Security, under the authority given by the State of Alabama Governor Riley's directions and formed under the Alabama Homeland Security Task Force resolution, serves as the steering group for statewide communications interoperability. It provides guidance and recommendations, reviews the overall progress of the plan, and approves goals and priorities.

The SEIC consists of seventeen representatives from state public safety associations and other government agencies. SEIC is called on to "provide policy level direction for matters related to planning, designing, and implementing guidelines, best practices, and standard approaches to address Alabama's public safety communications interoperability issues." The Executive Committee has appointed a Working Committee that will be the local basis for interoperability communications implementation throughout the state and will use its influence to obtain and guide the "buy-in" of all local and statewide agencies.

The SEIC plays a key role in the definition and implementation of the communication initiatives outlined in the state plan.

The following duties are the Committee's Charter:

- Recommend an approach for Alabama's interoperability efforts
- Develop formal recommendations to be followed toward plan implementation
- Report information back to the respective organizations involved
- Provide advice, feedback, and support for statewide interoperability efforts
- Resolve issues requiring policy, procedural, or other business decisions as needed
- Develop recommendations to the Governor for distribution of funds to localities for communications interoperability as required
- Advocate for interoperable communications at more senior levels of government and among member constituencies
- Consider guidance and approve recommendations from other advisory groups and local officials and agencies

Conducting an internal and external assessment helped the SEIC identify the critical

issues before them such as funding, time criticality, duplicate systems, and the need for coordination and collaboration on many levels. Now included is the FCC order for a nationwide change in radio spectrum allocated for public safety radio systems operations and upgrades, by the mandated 2013 deadline.

As with the first strategic plan, the SEIC continues to focus on three strategic goals. They are:

1. Provide **leadership** in developing policies, guidelines, legislative recommendations and other actions that lead to the drafting and implementation of a statewide Interoperable Communications Plan for Alabama.
2. Research and provide information forums about **technology** advances; set up compatible standards to carry out interoperable wireless communications, both for voice and for data.
3. Promote collaborative **partnerships** to maximize resource sharing.

The product of this effort will be to create an interoperable communication system accessible for public safety and other communications across Alabama. Infrastructure and radio systems will be tied together using advanced technology. This approach will be designed to allow public safety agencies the choice to fully integrate as a partner on a statewide radio system.

This system is being developed for state, federal, county, city, tribal and other emergency service providers. It is the SEIC's goal to ensure that it is broadly adopted by all jurisdictions with. The essential nature of this service will create efficiencies in the basic mission of public safety. This mission is so fundamental to local governments the SEIC believes adoption will be high.

To create such a system requires investment in infrastructure and technology. Also, it requires a well-understood design for operation and coordination for the future.

Critical Issues

The following six critical issues have been identified by the Alabama SEIC and provide motivation for many of the objectives in the SEIC Strategic Plan.

1. Need to communicate with one another during emergencies and day-to-day operations.
2. Leveraging of limited funding:
 - a. Sign off and review the 2007 Strategic Plan for statewide communications interoperability and all PSIC Grant Justification

- initiatives that are submitted to the PSIC grant application process
- b. Ranking of all justifications initiatives for the PSIC grant application
- 3. Elimination of duplication
 - a. Maximize resource sharing
 - b. Bridge building
- 4. Need for functional (operational and technical) guidelines that shape city, county, tribal and state communications interoperability
 - a. Interoperable channel setup
 - b. Federal Communications Communication mandate of system upgrades by 2013
- 5. Lack of central coordination, such as guidance and governance, for interoperability
- 6. Time criticality
 - a. Terrorism, major incidents

Vision, Mission and Goals

Vision and mission statements help to focus all the SEIC's efforts on a commonly needed end state.

Vision Statements

Near-Term Vision

Establish innovative and consensus-based approaches to mission-critical wireless communications technology and interagency partnerships that lead to seamless communication among public safety agencies serving the citizens of Alabama.

Long-Term Vision

Provide a framework for an innovative, inclusive, scalable, sustainable, and well-managed interoperability plan that reflects national standards, as well as being effective in addressing the unique statewide urban and rural requirements of the public safety agencies serving the citizens of Alabama.

Mission Statement

The mission of the Alabama Statewide Executive Interoperability Committee (SEIC) is to develop recommendations for policy and guidelines, identify technology and standards, and coordinate intergovernmental resources to promote statewide wireless communications interoperability with emphasis on public safety. This Committee will work with any other committee whose goal is to promote communications interoperability. At the present, Region 7 Homeland Security Task Force is the only other committee with the same goals.

Strategic Goals

To facilitate movement toward its vision, the SEIC set up the following three strategic goals that align with the Committee's stated priorities and identified critical issues:

1. Provide **leadership** in developing policies, guidelines, legislative recommendations and other actions that lead to the drafting and implementation of a statewide Interoperable Communications Plan for Alabama.
2. Research and provide information forums about **technology** advances; set up compatible standards to carry out interoperable wireless communications, both for voice and for data.
3. Promote collaborative **partnerships** to maximize resource sharing.

Meeting Schedule

SEIC will meet every other month beginning on Wednesday, November 14, 2007, at ALDHS, first floor meeting facilities, at 2 North Jackson Street, Montgomery, Alabama.

4.2 Technology – Statewide Shared

This section details the current technology in use now by state and local agencies. It also gives a snapshot of the current communications infrastructure used by agencies with statewide jurisdiction and other nongovernmental emergency response agencies.

Complete detailed frequency information used in each county can be obtained in a separate Alabama Communications Reference Document in progress available at ALDHS or AEMA.

STATEWIDE INTEROPERABILITY CHANNELS IN USE

The following tables show the interoperability channels in use throughout the state. These are Statewide and national mutual aid, interoperability or shared channels (NPSPAC), which includes VHF, UHF and 800 MHz Frequencies. With these channels programmed into the proper radios and helping gateways when needed, interoperability can be performed seamlessly statewide. In emergency services, M/A is a formal agreement among emergency responders to lend support across jurisdictional boundaries when needed, either by an emergency that exceeds local resources or a disaster. Alabama has agreements to share certain frequencies. All are simplex operation with no PL Tones. All are wideband operation:

Table 4.2 Interop Freq Chart

VHF State and (N) National Shared Channels²			
Channel Name	Frequency	PL Tone	Primary Use
STATENET³	155.0100	None	All responders
VLAW31	155.4750	None	Nat Law Enforcement
LE EMERGENCY	154.9500	None	Law Enforcement
LE INTERCITY	155.3700	None	Law Enforcement
(N) MA AMBL	155.265	None	State Ambulance MA
VMED28	155.3400	None	Nat EMS
VFIRE21	154.2800	None	Nat Firefighters
VFIRE22	154.2650	None	Firefighters
VFIRE23	154.2950	None	Firefighters
MA FIRE NET	155.0400	None	State Fire MA

² This list includes some 20 KHz frequencies that will change when the transition to narrowband (12.5 KHz) is completed. The deadline for transition to narrowband is January 1, 2013. VTAC, etc. base stations must be licensed if antenna height is over 20 feet and power output is over 5 watts.

³ **Most utilized local frequency throughout the state.**

“Interoperability” is defined as the ability of two or more systems or components to exchange information and to use the information that has been exchanged. **The FCC labeled five VHF frequencies and four UHF frequency pairs for Interoperability across the nation.** The following two tables show those frequencies.

VCALL10 (Calling Only)	155.7525	Tx 156.7 Rx None	All responders
VTAC11	151.1375	None	All responders
VTAC12	154.4525	None	All responders
VTAC13	158.7375	None	All responders
VTAC14	159.4725	None	All responders

UHF National Shared Channels ⁴			
Channel Name	Frequency IO	PL Tone	Primary Use
UCALL40/UCALL40D	453/458.2125	Tx 156.7 Hz Rx None	All responders
UTAC41/UTAC41D	453/458.4625	None	All responders
UTAC42/UTAC42D	453/458.7125	None	All responders
UTAC43/UTAC43D	453/458.8625	None	All responders

800MHz National Shared Channels ⁵			
Channel Name	Frequency IO	PL Tone	Primary Use
NPSPAC1 ICALL/ICALL a	866/821.0125	156.7 Hz	All responders
Post Rebanding 8CALL90/8CALL90D	851/806.0125	156.7 Hz	All responders
NPSPAC2 ITAC- 1/ITAC-1a	866/821.5125	156.7 Hz	All responders
Post Rebanding 8TAC91/8TAC91D	851/806.5125	156.7 Hz	All responders
NPSPAC3 ITAC- 2/ITAC-2a	867/822.0125	156.7 Hz	All responders
Post Rebanding 8TAC92/8TAC92D	852/807.0125	156.7 Hz	All responders

⁴ These are all narrowband (12.5 KHz) channels with a standard + 5 MHz offset for repeater use. Nomenclature for simplex operations on the repeater output frequency is ICALL, ITAC-1, etc... Base station must be licensed if antenna height is over 20 feet and power output is over 5 watts.

⁵ These channels will change frequencies as Alabama (NPSPAC Region 1) completes Rebanding. The target for transition is July 1, 2008.

State of Alabama
2007 Strategic Communications Interoperability Plan

NPSPAC4 ITAC-3/ITAC-3a	867/822.5125	156.7 Hz	All responders
Post Rebanding 8TAC92/8TAC93D	852/807.5125	156.7 Hz	All responders
NPSPAC5 ITAC-4/ITAC-4a	868/823.0125	156.7 Hz	All responders
Post Rebanding 8TACa94/8TAC94D	853/808.0125	156.7 Hz	All responders
Ala Mutual Aid	853/808.3875	210.7 Hz	Ala Mutual Aid

Licenses:

Statewide I/O VHF & UHF frequencies are licensed by AEMA for temporary and mobile use. These frequencies are not to be used for daily dispatch or routine communications. These frequencies are for disaster/incident coordination use only.

The VHF/I/O frequencies are dedicated to any public safety eligible (agency).

The I/O VHF frequencies are simplex and the I/O UHF frequencies are repeater pairs.

The UHF pairs are used with portable repeaters found on the regional vehicles and the state vehicle. Simplex frequencies for repeater “talk around” are included on the license. Simplex frequencies are labeled with the letter “D” (Direct) in the channel name.

Frequency use agreements between AEMA and the individual counties cover the use of these frequencies.

4.2.1 Alabama Strategic Technology Reserve (STR)

Alabama has seven **Regional Communications Vehicles** prepositioned in each Homeland Security Region and one Incident Support Unit (ISU) maintained by the Alabama Emergency Management Agency. Also included in the Alabama Technology Reserve is a mobile 9-1-1 vehicle. This equipment is used to quickly set up communications following a disaster or catastrophic event. It is also used to strengthen existing local communications if local resources become overwhelmed. **The STR also contains several radio caches prepositioned throughout the state.**

PSIC grant funding will be used to strengthen current assets and resources by prepositioning more equipment in each region.



Detailed outline of this initiative is in Section 5.4

Regional Communications Vehicles Overview

The Regional Communications Vehicle was designed and built to give local first responder and emergency managers unprecedented connectivity and interoperability from remote and on site emergency and disaster scenes.

Built on a multi-layered communications platform, it provides the necessary communications capability to allow for the efficient execution of vital Incident Command and emergency planning from any location independent of local infrastructure.



Region	Agency (Based)	City	Contact	Phone
Region 1	Mobile Co EMA	Mobile	Walt Dickerson	251 460-8000
Region 2	Houston Co EMA	Dothan	Shelby Womack	334 794-9720
Region 3	Tuscaloosa Co EMA	Tuscaloosa	David Hartin	205 349-0150
Region 4	Chambers Co EMA	Lanett	Donnie Smith	334 576-0911
Region 5	Lauderdale Co EMA	Florence	George Grabryan	256 760-6363
Region 6	Madison Co EMA	Huntsville	Rusty Russell	256 427-5130
Region 7	Calhoun Co EMA	Jacksonville	Dan Long	256 435-0540
Statewide	AEMA	Clanton	Fred Springall	205 280-2288

Table 4.3 Regional Commo Vehicles Bases / Info

The communications systems can rapidly set up on site connectivity between disparate radio systems and provide radio-to-telephone connectivity. This ability to cross-band disparate radio nets allows the on-site incident commander the ability to set up and control an on-scene improvised M/A net or channel. These crossbanded radio nets can further be separated into distinct call groups. The integral vehicle interoperability package also can serve as a radio relay serving to extend the existing tower-based radio system. The system can also provide in-building or in-tunnel radio extension services. Radios that are cross-linked include VHF, UHF, 800 MHz, 700 MHz, trunked, military and other phones. The backhaul capability provided through the RCV's satellite used in concert with its bridging technology and Wide Area Interoperability System connectivity establishes a temporary communication site.

High-Speed Internet Access

The system provides the on-site Incident Command Team with high-speed internet access by a mobile satellite link. This satellite is easily employed and uses a Global Positioning System (GPS) to find and lock onto the satellite for rapidly set up Internet and data access. Integrated with a wireless network, the on-site local emergency team has access to the Internet by a mobile hot spot. This will allow untethered access to e-mail, instant messenger and web based intranets or critical incident management applications. With access to high-speed data, incident reporting and support coordination with off-site agencies can be more easily carried out, leaving radio bandwidth for critical command actions.

Telephone Service

The system comes equipped with a cellular telephone base station and power boost amplifier that allows standard telephones to access existing cell phone networks from extended ranges. This package can provide access for multiple phone lines and provides standard voice, dial-up data and fax services.

Integrated Work Shelter

Mountable on any standard 8 ft pickup truck, the system can be dismantled within minutes from the truck using an improved jack system. This dismount choice allows for full shelter mission and frees the truck for other administrative or logistics functions during extended operations. The shelter provides an environmentally controlled workspace with a command desk console for 2-3 operators, slide-out equipment racks that house the communications and interoperability gear and a storage closet and convenience rack capable of holding a small refrigerator and microwave.

System Components

- AuraGen electrical power generation and custom power distribution
- Touch screen control of audio/video systems
- JPS ACU 1000 communications gateway

- Motorola VHF, UHF repeaters and radios
- Ground control satellite Internet service with DirecTV®
- Cell phone dock
- Satellite phone
- Pelco video camera
- Axis 4-Port video server
- Custom shelter
- Custom roof rack
- Full audio/video presentation and recording systems
- Three wireless network enabled laptop computers

Overview of the Vehicle Interoperability Capabilities

RCV Radio Interoperability using the ACU-1000



The RCV can rapidly set up on site connectivity between disparate radio systems using the JPS ACU-1000 bridging equipment. This ability to cross-band radio nets allows the on-site incident commander to set up and control an on-the-scene improvised M/A net or channel. These crossbanded radio nets can further be separated into distinct call groups. The integral package also can serve as a radio relay to extend the existing tower-based radio system.

Twelve or twenty-four (depending on model) different radios/telephones can be interconnected in up to seven individual groups using the ACU-1000.

Equipment that can be cross- connected include VHF high band, VHF low band, UHF, SouthernLINC, Nextel, selected 800 and 700 MHz Trunking systems, military, and other telephone systems.

This system can also provide reach back radio capabilities to the County EMA, other county agencies and AEMA.

AEMA List of Inputs for JPS ACU-1000 in ISU Mobile Units

VHF-High

- Alabama Department of Public Safety
- Alabama Department of Transportation & Dept of Conservation
- Alabama Forestry Commission
- Alabama M/A simplex frequencies
- Alabama Marine Police
- Alabama National Guard
- Civil Air Patrol and Marine Band
- Programmed as needed for local operations

VHF-Low

- Alabama Department of Corrections

UHF

- AEMA Repeater and simplex frequencies
- Alabama Forestry Commission (Volunteer Fire Departments)
- Alabama M/A frequencies and FRS
- Programmed as needed for local operations

Trunking

- Alabama CSEPP 800 MHz System including common M/A frequencies
- NEXTEL
- Other trunking systems as needed
- SouthernLINC

Other

- Satellite telephone input
- Cellular telephone input
- Connection to locally provided units with cabling

Satellite Uplink/Downlink Capability Providing High-Speed Internet Access

The system provides the on-site Incident Command Team with high-speed Internet access with a mobile satellite link. This satellite is easily deployed and uses GPS to find and lock onto the satellite for rapidly set up Internet and data access. The on-site local emergency team can access the Internet by a mobile hot spot, integrated by a wireless network. This will allow access to e-mail, instant messenger, EM-2000 and web based intranets. With access to high-speed data, incident reporting and support coordination with off-site agencies can be more easily carried out, leaving radio bandwidth for critical command actions.

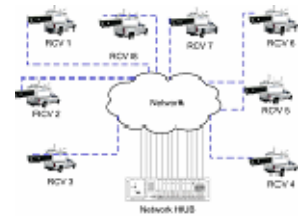


Satellite TV

DirecTV provides (receive only) of network programming, news and local select TV stations. This video feed can be provided too many sites from the vehicle.

Wide Area Interoperable Software (WAIS) – Vehicle and Agency Ability

The (WAIS) consists of eight ACU-1000 units connected over an IP network, which, usually, will be the Internet. The dispatchers can cross-connect assets at their local level (local interoperability) as well as cross-connect together assets from other RCV's (wide area interoperability). Dispatchers may also use the system to converse with one another.



ALDHS is installing networks and gateways throughout the state. Eight of the largest metropolitan areas will be networked by midyear 2008.

Portable Repeaters

- 1 - VHF and 1 - UHF repeater are available on each of the trucks
- These repeaters can provide extended local area coverage for portable radios and can provide a temporary replacement repeater site for a nonfunctional site
- These units can be programmed as a conventional radio if needed

On-scene Video

- Provides remote control on-scene video that can be sent to a webpage to be displayed locally or recorded. WAIS Software provides this vital link to real-time video during emergency scenarios
- Public address and video Projection
- Provides an outdoor mounted screen, video and public address audio for briefings

Virtual-Alabama (Google Earth)

This software was purchased from Google by the ALDHS and licensed for any user after showing proper credentials. It is free for approved users and is becoming a vital part of the state's communications and information systems. This IP based software is an excellent method of real time communication and provides much needed local and regional data for agencies involved. It can provide such data streams as real time DOT Traffic Cam streaming video, structure and terrain drawings for law enforcement and firefighting, hazardous plume tracking with real time weather projections and many other applications. With satellite communications in regular use throughout the state, this IP software is vital to reliable communications links. As long as an Internet connection can be obtained, Virtual-Alabama is online. Many ports are being installed all over the state by WAIS, in which this software will be used. Internet (VoIP) use is the largest wave of the future on communications, whether normal, everyday or situational interoperability.

The central goal of the Virtual-Alabama program is to ensure "the right people have the right information at the right time." Using Google Earth Enterprise, the Virtual-Alabama

team has built what ALDHS calls a "bridge of communication between emergency responders." Equipped with the Google Earth platform, ALDHS has been able to do such as model hazardous explosions with resulting plume possibilities so department officials can plan public evacuation routes more effectively.

Encouraged by the success of the program's first stage of implementation, ALDHS is working with the Google Earth team to develop tools that take situational awareness to the next level. Planned applications include delivering detailed views of the interiors of buildings (for example furniture and live footage), directing responder teams in emergencies through the platform, overlaying real-time data (for example traffic) with route mapping to better manage and control resources, and integrating a public emergency radio broadcast system in real time.

General examples of real-time application of Virtual-Alabama include:

- Common operational picture for emergency personnel
- Emergency evacuation routing
- Situational awareness
- Vehicle and asset tracking
- Critical Infrastructure mapping
- Identification of assets and vulnerabilities
- Visualization of risks
- Plume modeling and real-time sensors feeds
- Implementation of protective measures during events

Google Earth Enterprise has provided a highly effective framework in which to support public sector programs in Alabama. As a platform, it has helped produce the common operational picture needed to protect lives and safeguard Alabama citizens in times of man-made or natural disasters. Having a secure, dynamic, and common information-sharing platform has allowed Alabama to reach the next level in emergency readiness and disaster management.

Power Generation and Powering Options

The towed generator can be used to power the interoperable vehicle equipment and provide limited power to other agencies at the scene.



The on-board generator, running off the truck engine, can power the equipment inside the shelter. This equipment can also be powered from shore power.

4.2.2 State Agencies

AEMA State-wide Backup UHF NET Repeater Towers Map, Adjacent Coverage for each Repeater and Programmed Frequencies

All local EMAs can access these repeaters from their EOC and will have direct access to and from the State EOC (Clanton) in the future. This system is statewide with only a narrow portion of coverage not available (note following coverage map). Plans are in place now to relieve this problem.

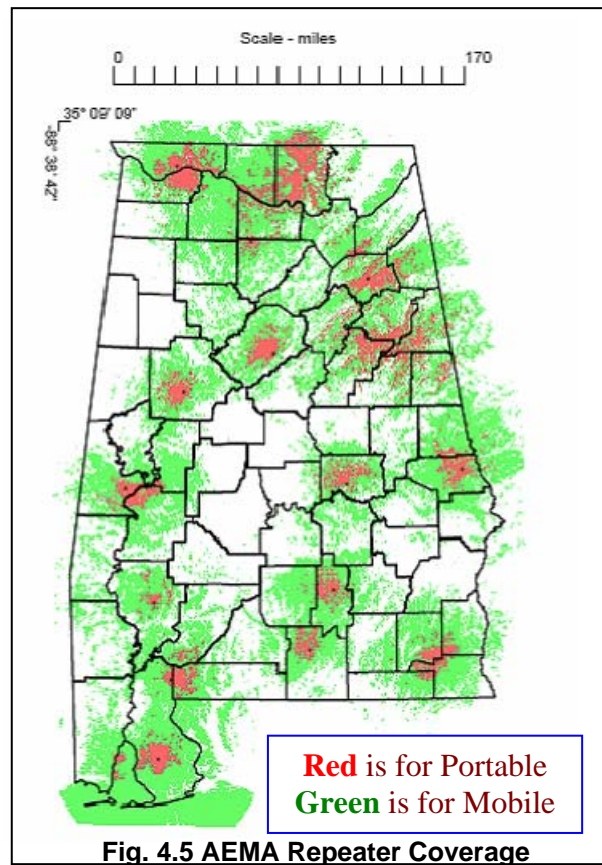
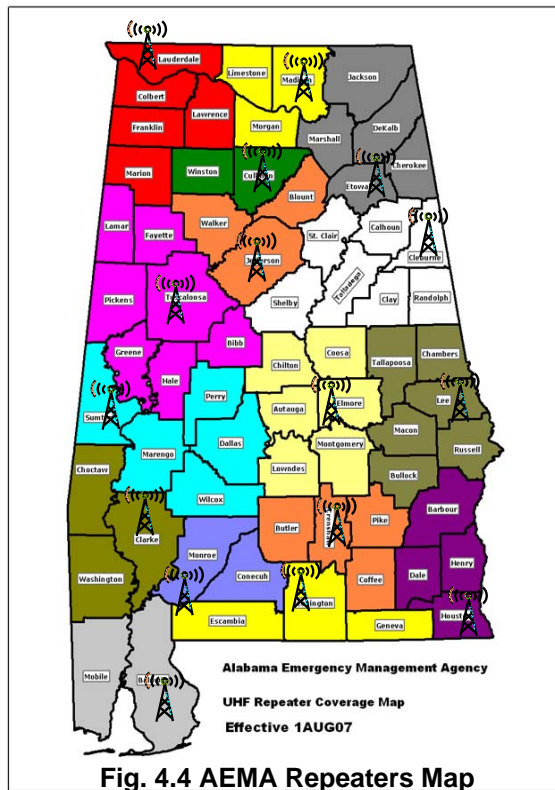


Table 4.4 AEMA Repeater Programming

AEMA Statewide UHF NET Repeater Programming

Name/Region		Transmit (CG)	Receive (CG)
Baldwin	1	458.400 MHz (173.8 Hz)	453.400 MHz (162.2 Hz)
Clarke	1	458.425 MHz (146.2 Hz)	453.425 MHz (162.2 Hz)
Escambia	1	458.650 MHz (173.8 Hz)	453.650 MHz (162.2 Hz)
Covington	2	458.400 MHz (151.4 Hz)	453.400 MHz (162.2 Hz)
Crenshaw	2	458.425 MHz (127.3 Hz)	453.425 MHz (162.2 Hz)
Houston	2	458.725 MHz (151.4 Hz)	453.725 MHz (162.2 Hz)

State of Alabama
2007 Strategic Communications Interoperability Plan

Sumter	3	458.725 MHz (173.8 Hz)	453.725 MHz (162.2 Hz)
Tuscaloosa	3	458.650 MHz (146.2 Hz)	453.650 MHz (162.2 Hz)
Elmore	4	458.650 MHz (127.3 Hz)	453.650 MHz (162.2 Hz)
Lee	4	458.400 MHz (146.2 Hz)	453.400 MHz (162.2 Hz)
Lauderdale	5	458.400 MHz (146.2 Hz)	453.400 MHz (162.2 Hz)
Cullman	6	458.650 MHz (151.4 Hz)	453.650 MHz (162.2 Hz)
Madison	6	458.425 MHz (173.8 Hz)	453.425 MHz (162.2 Hz)
Cheaha	7	458.400 MHz (127.3 Hz)	453.400 MHz (162.2 Hz)
Gadsden	7	458.650 MHz (136.5 Hz)	453.650 MHz (162.2 Hz)
Jefferson	7	458.725 MHz (127.3 Hz)	453.725 MHz (162.2 Hz)
AEMA S1		453.400 MHz (No Tone)	453.400 MHz (No Tone)
AEMA S2		453.425 MHz (No Tone)	453.425 MHz (No Tone)
AEMA S3		453.650 MHz (No Tone)	453.650 MHz (No Tone)
AEMA S4		453.725 MHz (No Tone)	453.725 MHz (No Tone)
UCALL40		458.2125 MHz (No Tone)	453.2125 MHz (No Tone)
UCALL40D		453.2125 MHz (No Tone)	453.2125 MHz (No Tone)
UTAC41		458.4625 MHz (No Tone)	453.4625 MHz (No Tone)
UTAC41D		453.4625 MHz (No Tone)	453.4625 MHz (No Tone)
UTAC42		458.7125 MHz (No Tone)	453.7125 MHz (No Tone)
UTAC42D		453.7125 MHz (No Tone)	453.7125 MHz (No Tone)
UTAC43		458.8625 MHz (No Tone)	453.8625 MHz (No Tone)
UTAC43D		453.8625 MHz (No Tone)	453.8625 MHz (No Tone)

Primary Communications System for AEMA:

The normal day-to-day system that AEMA uses is SouthernLINC. This system covers most of the state. Each county EMA office has LINC equipment, both fixed and portable. This system has the option of connecting different fleets (cross fleet) on the newer portable radios and that, in itself, is a form of I/O communications. Several other state agencies, counties, local municipalities and the Federal Emergency Management Agency have this type of equipment.

Statewide Backup System:

The AEMA UHF repeater (16) system is considered the backup of the statewide I/O system. This series of repeaters essentially covers the state, and most EMA county offices are able to access at least one of these repeaters. All repeaters will have access to and from the State EOC in the future.

Note: A grant provided for all counties to buy a narrowband capable UHF base station with I/O preprogrammed frequencies.

Backup Communications Systems for All Alabama County EMAs will be Amateur (Ham) Radio Operators

NEW LAW FORMALLY MAKES AMATEUR RADIO PART OF EMERGENCY COMMUNICATIONS

A section of the Department of Homeland Security (DHS) 2007 Appropriations Act, HR 5441, formally includes amateur radio operators as a part of the emergency communications community. Congress approved the measure before adjourning for its pre-election break. President George W. Bush signed the bill into law October 4, 2002.

Amateur radio is included within the legislation's Subtitle D, Section 671, known as the "21st Century Emergency Communications Act." Radio amateurs are among the entities with which a Regional Emergency Communications Coordination Working Group (RECC Working Group) must coordinate its activities. Included within the DHS's Office of Emergency Communications -- which the measure also creates -- RECC Working Groups attached to each regional DHS office will advise federal and state homeland security officials. The final version of the legislation incorporated language from both House and Senate bills and was hammered out in a conference committee.

An earlier version of the 21st Century Emergency Communications Act, HR 5852, included amateur radio operators as members of the RECC Working Groups. In addition to Amateur Radio operators, RECC Working Groups also will coordinate with communications equipment manufacturers and vendors -- including broadband data service providers, local exchange carriers, local broadcast media, wireless carriers, satellite communications services, cable operators, hospitals, public utility services, emergency evacuation transit services, ambulance services, and representatives from other private sector entities and nongovernmental organizations.

The following Alabama agency maps show the individual agency tower and repeater coverage currently available within the state. A primary Statewide Investment Justification (IJ) submitted with this plan, involves building a statewide radio communications system. Ample towers are available for use to develop this system. It is cost-effective to use these existing towers for repeater/antenna mounting instead of building new ones.

Alabama Department of Transportation

ALDOT

This agency has a Conventional VHF Repeater System, fitting to their agency. These are found mainly at district offices throughout the state. The adjoining map shows their locations. Tower space will be available from these sites, as other agencies need more repeaters.

Alabama State Net Frequency 155.0100 is available in most ALDOT vehicles. This frequency can be used for contact with other first responder agencies. NPSPAC and other M/A frequencies are not programmed. Gateways are available at EMAs throughout the state to facilitate interoperable communication links with ALDOT and other agencies, as these interoperability frequencies are not available on the agencies radios.

Department of Transportation Divisions



Fig. 4.6 ALDOT Tower Map

Alabama Department of Public Safety

ADPS

This agency has conventional VHF – High Band Base Station System. This system is accessible from most places in their districts. The statewide coverage is about 75% complete at this point. This system will be one of the first to benefit from more equipment/technology because of projected funding, and it will benefit from sharing tower space with other agencies. Most communication between trooper car and bases/posts are simplex, with the base station functioning as selected. M/A and NSPAC Frequencies are programmed into these units statewide and are used extensively, especially 155.010 State Net. ADPS has their own response vehicle, comparable to the Incident Response Units in use by each AEMA region. Communication promoted by these units is exceptional.

Xmitter Sites / Posts / Field Offices / Xmit Area

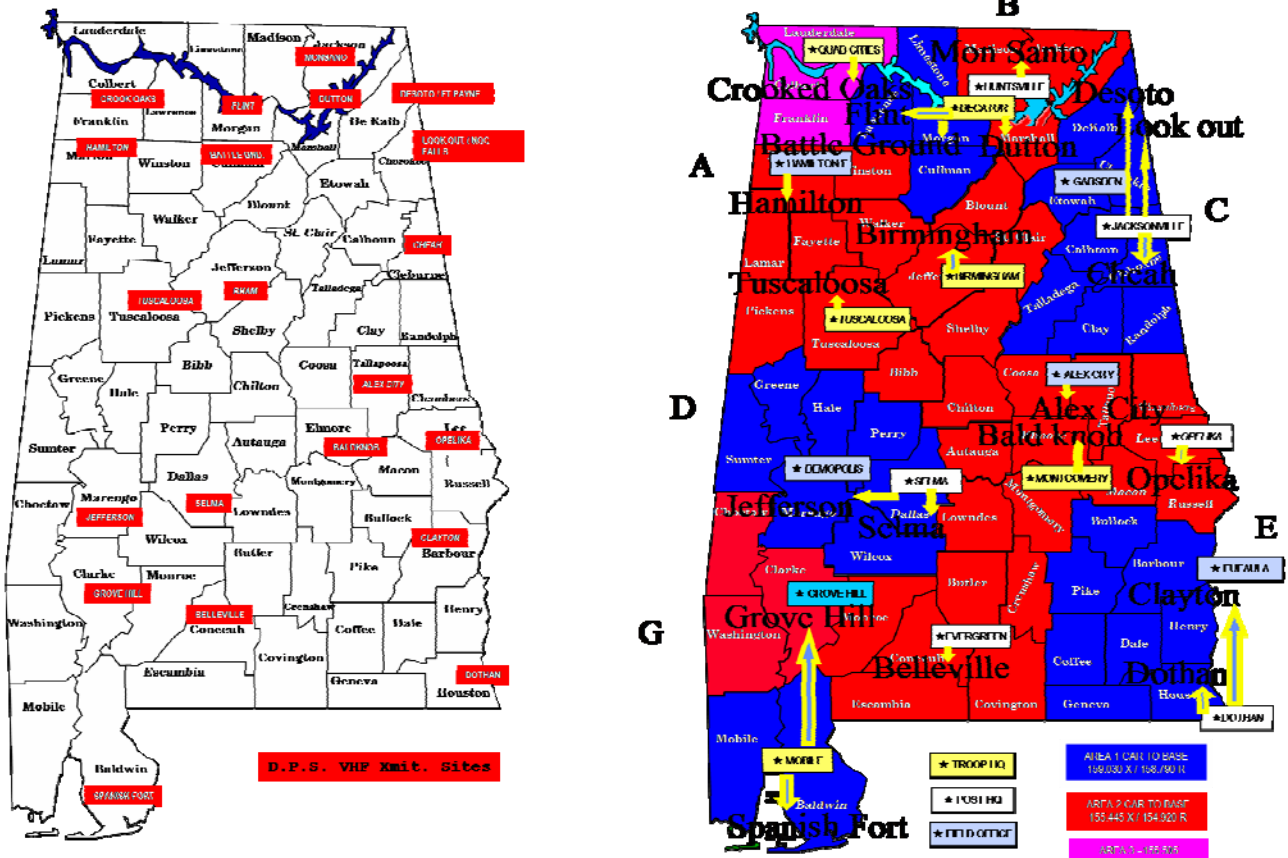


Fig. 4.7 ADPS Post and Field Office Maps

Alabama Forestry Commission

The Commission has excellent coverage throughout the state. They not only manage their own communications infrastructure, they also maintain 95% of all Volunteer Fire Department's UHF Communications on their towers. The Forestry Commission has a VHF radio system statewide that has a central dispatch found in Montgomery. Plans are in place to open three more control sites soon that will give the infrastructure a statewide linked system. One individual in a location could talk to those in the other locations throughout the state at-will. Their communications system is also connected to the Alabama Public Television System, in that a laptop can be connected at any one of the APT tower sites and by means of VoIP, "talk" is opened with central dispatch. In the future, this can be with any location within the state.

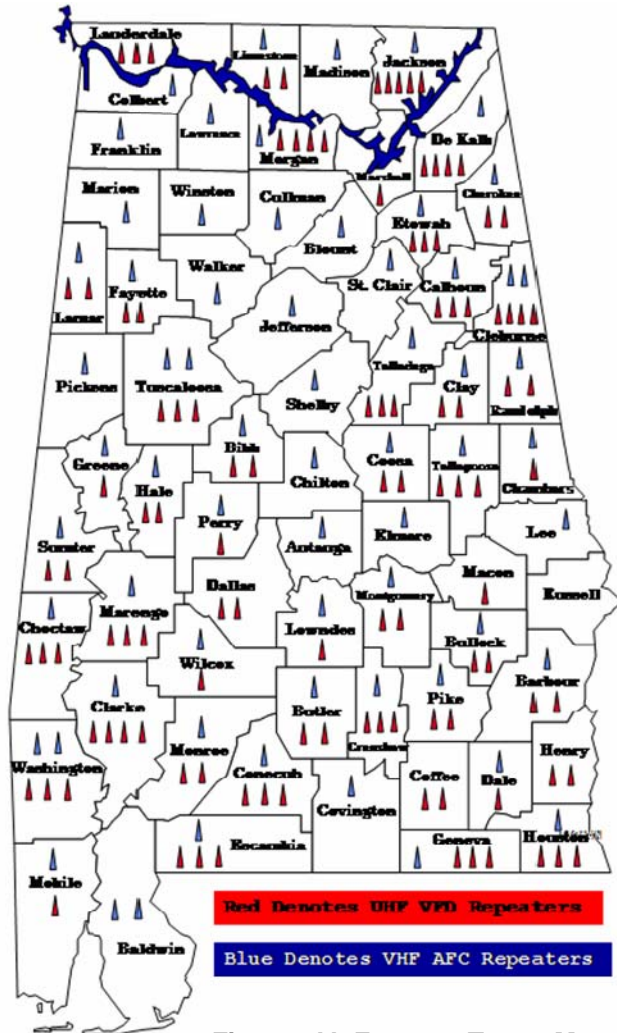


Fig. 4.8 AL Forestry Tower Map

Work is in progress to upgrade every single tower in their system. This includes not only their VHF system, but also the UHF system that Alabama's volunteer firefighters use. These UHF repeaters for VFDs are not a statewide system but are individually local (county) in coverage.

The State Forestry's role in a disaster is to immediately follow the Department of Public Safety into the area and perform road-clearing duties. This clearing involves a path to allow emergency vehicles access, only and not complete remediation. There are several strike teams trained, located in various stations throughout the state, ready to respond with two dozers, support and communications vehicle, with several chain saw crews in each team. **All the vehicles have the State Net 155.010 frequency in their radios and are able to interoperate on scene with other agencies easily.** No other M/A or NPSPAC frequencies are in use now. They will have narrow banding completed by the end of 2008 and 700 MHz frequencies have been applied for and received so transition can begin as fitting.

The Commission is installing a statewide Auto Vehicle Locator (AVL) module in each vehicle, including dozers. This GPS-based software will give a vehicle location every ten minutes to central dispatch. This will be used for location pinpointing and for operational and logistical purposes also. With this frequent updating, it is possible to draw a map of fire line clearance locations and plot the progress of firefighting efforts. Every time a transmission occurs over the radio system, this update takes place also. This excellent system will be a model for other agencies to follow, especially for the Alabama Department of Public Safety, who would be able to track their patrol cars and pinpoint each unit's location. An added feature is the ability to manually send a signal/location when the unit is in trouble and needs help. This system runs on the forestry's repeater system and is not satellite functional.

American Red Cross

Each region has an American Red Cross chapter with a coordinator in charge. These chapters do not have their own communications system but rely on local emergency response agencies to support their communications needs.

An example of this would be the Calhoun – Cleburne County region. Four 800 MHz radios from the county EMA Radio System are placed in strategic shelter sites in the event of an emergency. More radios can be obtained if needed, up to the status of their availability. The chapters also have an agreement with Verizon to supply cell phones if needed.

All local, regional and state EMA locations serve these regional chapters through their EOP. A representative should be in the local EOC during an emergency that requires activation.

Alabama Army National Guard 46th Civil Support Team

This unit is active in all incidents where participation is requested or needed because of military roles. Their communications include all M/A and NPSPAC frequencies as well as military communications. They are well trained, and the coordination between these entities is exceptional.

There are four military installations in Alabama. Redstone Arsenal in Huntsville, Anniston Army Depot in Anniston, Maxwell Air Force Base in Montgomery, and Ft. Rucker Army Base in Ozark. Fort McClellan Army Base in Anniston was deactivated several years ago. Anniston Chemical Activity Site is next to AAD in Calhoun County and is active in destructing Nerve Gas for the military. It is one of several CSEPP sites across the U.S. engaged in this same activity. Its relationship about communications with the surrounding counties is outstanding. Many federal dollars have been spent on these surrounding communications systems and will be continued until at least 2013, the deadline for weapons to be destroyed and the facility dismantling. In particular, Calhoun and Talladega County radio systems (Motorola 800 MHz) are two of the best in the state now.

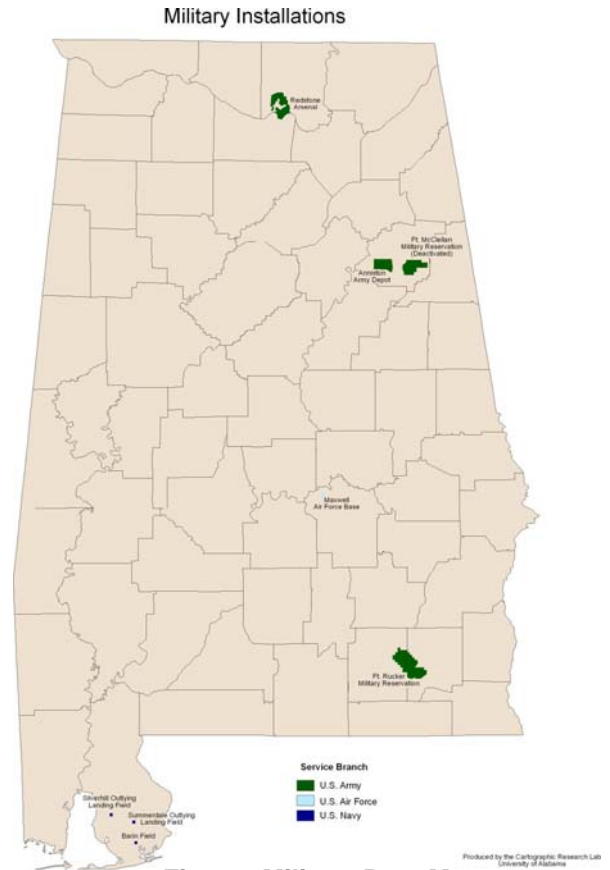


Fig. 4.9 Military Post Map

Alabama Department of Conservation and Natural Resources

ADCNR

This agency covers all the state in their duties and is comprised of the Alabama Marine Police and the Alabama Conservation Officers (Game Wardens). This agency does not have a dedicated statewide radio system of its own and relies on SouthernLINC for its daily communications. If there is a problem with the cell two-way coverage, they have VHF radios that are programmed with Alabama Department of Public Safety frequencies and can access by the repeaters depicted on the adjoining map. The communications are limited locally, based on specific repeater coverage that can be obtained. A few of these repeaters are found on ADCNR owned towers, but most are on Alabama Forestry Commission towers. A few are on Alabama Public Television towers. The State Net 155.0100 frequency can be reached by ADPS, as these frequencies are programmed into every mobile and portable DCNR radio.

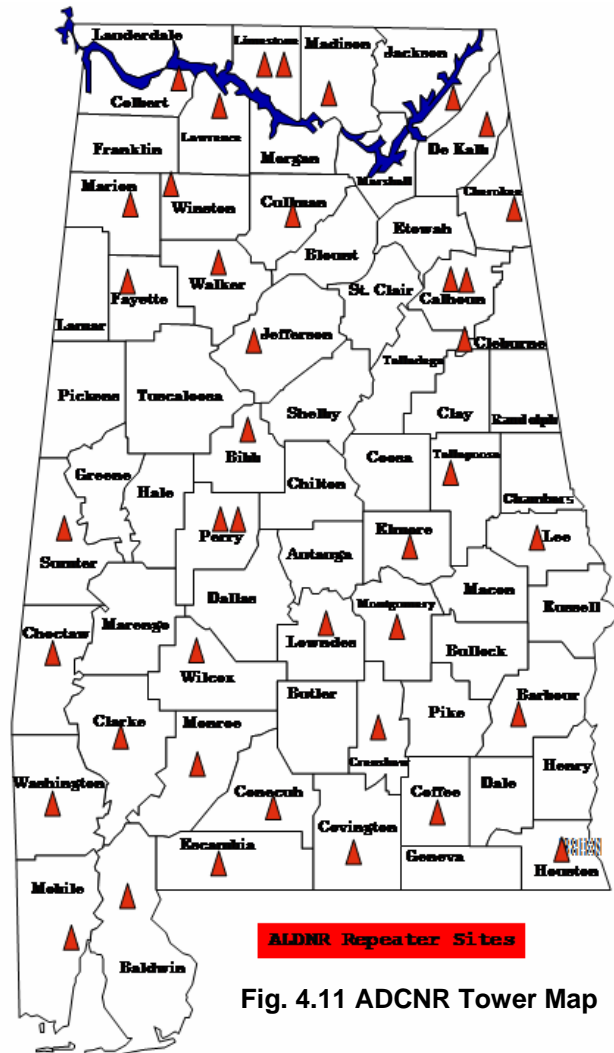
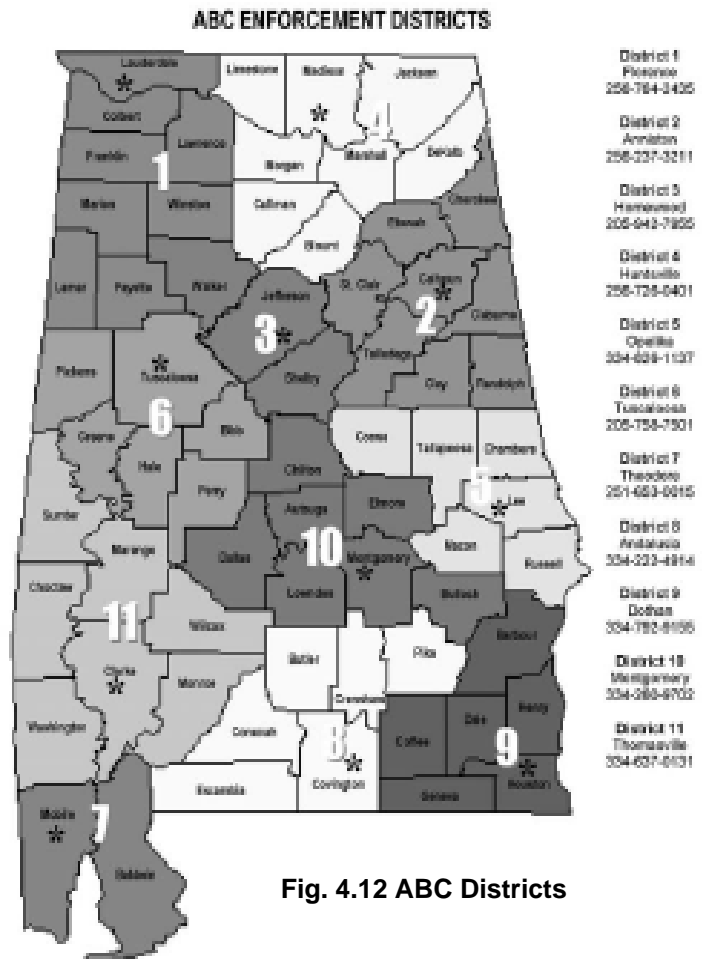


Fig. 4.11 ADCNR Tower Map

Alabama Alcoholic Beverage Control Board, Law Enforcement Division

ABC Board

This agency covers all the state in their duties. It is comprised of 11 Districts, 1 Statewide Drug Task Force, and the Central Office in Montgomery. The agency does not have a dedicated statewide radio system of its own and relies on SouthernLINC for its daily communications. If there is a problem with the cell two-way coverage or cell phone service, they have VHF radios programmed with frequencies for the Alabama Department of Public Safety, Sheriff's and Police Departments. The communications are limited locally, based on specific frequency permissions and repeater coverage that can be obtained.



4.2.3 Other Shared Resources

SouthernLINC 800 MHz iDEN Cell Phone 2-Way System

This system is used throughout Alabama as a daily communications system between the majorities of state agencies. This system is broken down into talk groups for convenience and efficiency of contact. The system is for administrative purposes, although most agencies use it for all occasions. In its daily use, agencies might use it first in an incident, but it is not designed for this as it can become overloaded. The adjoining map pictures its state and nationwide coverage. Note: This system is a product of the Southern Company in which Alabama Power is an entity.

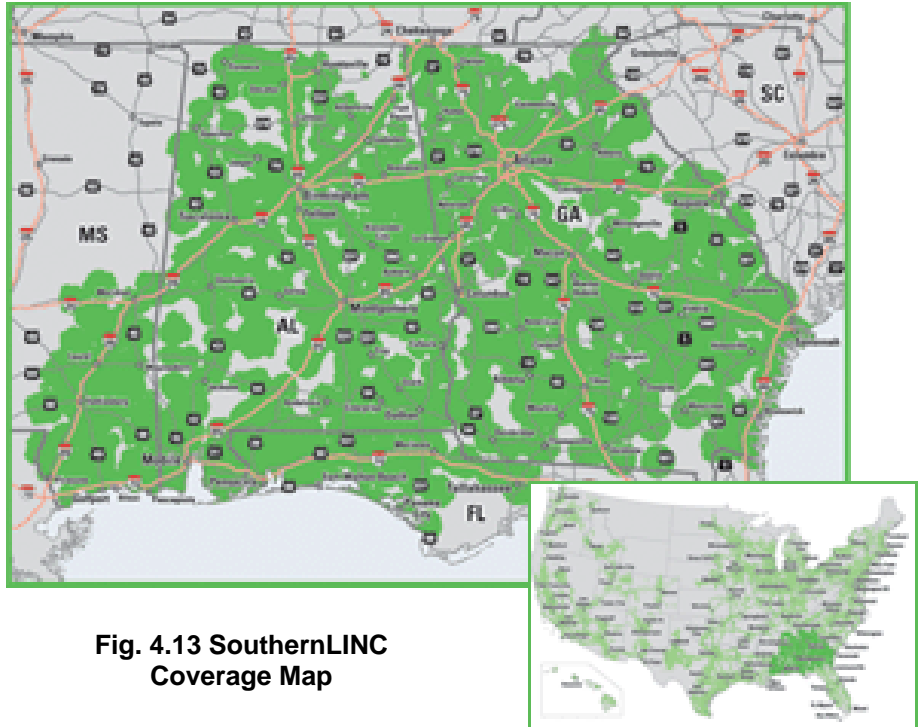
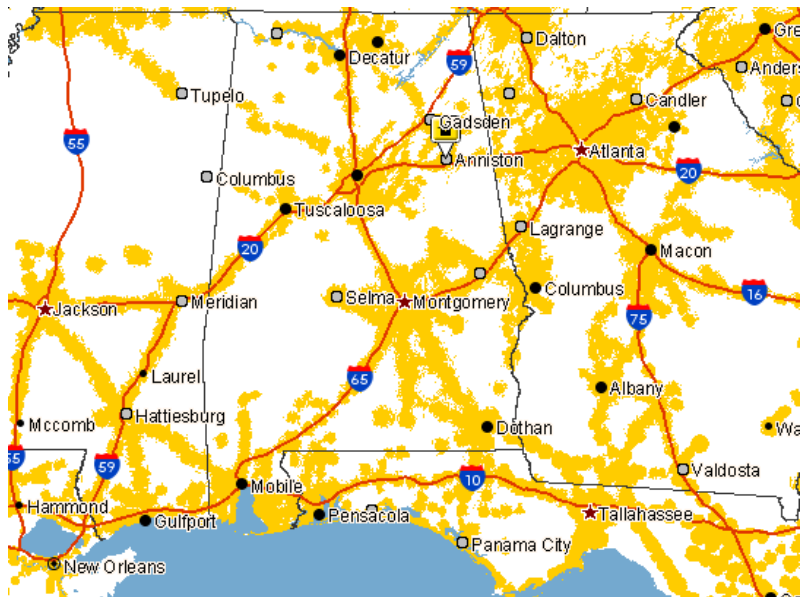


Fig. 4.13 SouthernLINC Coverage Map

Nextel 800 MHz iDEN Cell Phone 2-Way System

This system is used by some agencies within Alabama in daily use also. Its coverage is sparse compared with SouthernLINC. This system is designed for administrative purposes. Notice the coverage for Nextel is more limited than is noted with Southern LINC; thus, only a few agencies use this system. Nextel has the ability of fleet mapping with different talk groups, but it is not used for state agencies. Sprint/Nextel is connecting the two systems together, as they are now one company. Sprint phones are available

Fig. 4.14 Nextel Coverage Map



that use Sprint's cell towers for cell and Nextel towers for 2-way talk. With Rebanding, this problem should be reduced.

List of Equipment/Technology Available for Deployment for State's Assistant when requested:

- **Interoperable equipment:**
 - 7 regional vehicles with VHF, UHF, I/O, data and satellite capacity
 - 1 AEMA owned vehicle with VHF, UHF, I/O, data and satellite capability
 - 1 state owned vehicle found at Alabama Forestry with VHF, UHF, I/O, data and satellite capability
 - 1 state owned vehicle found at DPS with VHF, UHF, I/O, data and satellite capability
 - 1 available vehicle found at the 46th Civil Support Team with VHF, UHF, I/O, data and satellite capability
 - 1 AEMA owned transportable ACT unit with 3 VHF and 1 UHF radios for temporary operation in a local area
 - 67 counties have fixed I/O equipment installed and programmed with local/regional frequencies
- **Other communications equipment (maintained by AEMA):**
 - AEMA Mobile Command Vehicle with limited UHF, VHF and 800 MHz radio capability
 - **Cache of pre-programmed SouthernLINC radios** with specific groups for use during disasters
 - **Cache of cellular telephones**
 - **Cache of pre-programmed UHF portable radios** with AEMA repeaters, AEMA simplex and I/O frequencies preprogrammed.
 - **Cache of 800 MHz portable radios** with simplex frequencies to be used on site
 - Preprogrammed VHF/UHF base stations with repeater and simplex frequencies
 - VHF/UHF radios in AEMA vehicles with I/O frequencies.

List of Inputs for JPS ACU-1000 in the State Communications Vehicle prepositioned at the State EOC in Clanton.

VHF-High

- Alabama Department of Transportation & Dept of Conservation
- Alabama Forestry Commission
- Alabama M/A simplex frequencies
- Alabama Marine Police
- Alabama National Guard
- Civil Air Patrol and Marine Band
- Programmed as needed for local operations

VHF-Low

Alabama Department of Corrections

UHF

- AEMA Repeater and simplex frequencies
- Alabama Forestry Commission (Volunteer Fire Departments)
- Alabama M/A frequencies and FRS
- Programmed as needed for local operations

Trunking

- Alabama CSEPP 800 MHz System including common M/A frequencies
- NEXTEL
- Other trunking systems as needed
- SouthernLINC

Other

- Satellite telephone input
- Cellular telephone input
- Connection to locally supplied units w/cabling

List of Inputs for JPS ACU-1000 in the **Regional Communications Vehicle prepositioned in seven of the State's Regions.**

VHF-High

- County Sheriff within the region
- Municipal Police Departments within the region
- Fire (Paid and Volunteer) Departments within the region
- County and city administrative channels within the region
- Statewide Interoperable and Mutual Aid frequencies
- National Interoperable and Mutual Aid frequencies
- Surrounding regions law and fire frequencies
- Programmed as needed for local operations

UHF

- County Sheriff within the region
- Municipal Police Departments within the region
- Fire (Paid and Volunteer) Departments within the region
- County and city administrative channels within the region
- Statewide Interoperable and Mutual Aid frequencies
- National Interoperable and Mutual Aid frequencies

- Surrounding regions law and fire frequencies
- Programmed as needed for local operations

Trunking

- SouthernLINC
- Local trunking systems
- Statewide Interoperable and Mutual Aid frequencies
- National Interoperable and Mutual Aid frequencies
- Possible NEXTEL
- Possible CSEPP (Chemical Stockpile Emergency Preparedness Program)

Other

- Satellite telephone input
- Cellular telephone input
- Connection to locally furnished radio using premade cabling

Table 4.5 Shared System/Types and Agencies with M/A & NPSPAC Repeaters in Operation and Programmed Channels.**

Region	Jurisdiction	System	Area/Agency(s)
State-wide	State of Alabama	SouthernLINC (Cellular 2-Way)	AEMA by Private Contractor ALDHS, County EMA's, Other State Agencies
State-wide	AL EMA**	Conventional UHF Repeater System	AEMA, AL MA Teams, County EMA's
State-wide	State Forestry Comm.	Conventional VHF & UHF Repeater Systems	Ala Forestry Comm.
State-wide	AL Dept of Public Safety**	Conventional VHF Repeater System	AL Dept of Public Safety
State-wide	AL Dept of Corrections	Conventional VHF Low Band System	AL Dept of Corrections
State-wide	AL Dept of Conservation and Natural Resources	Conventional VHF Repeater System	AL Department of Natural Resources
Region 1	City of Mobile / Mobile County**	M/A-Com 800 MHz EDACS	Mobile Co EMA
Region 2	City of Dothan / Houston County**	Motorola 800 MHz Trunking/LTR System	City of Dothan
Region 4	City of Montgomery/ Montgomery County**	800 MHz EDACS Pro-Voice Net	City of Montgomery
Region 6	Madison County**	Motorola 800 MHz Trunking System	City of Huntsville/Madison

State of Alabama
2007 Strategic Communications Interoperability Plan

			County
Region 7	Calhoun/Talladega Counties**	Motorola 800 MHz Trunking System	Calhoun/Talladega EMA
Region 7	City of Birmingham/ Jefferson County**	Motorola 800 MHz Trunking System	Jefferson Co EMA
Region 7	City of Gadsden Area**	800 MHz EDACS System	City of Gadsden
Region 7	Talladega County**	Conventional UHF Repeater System	Talladega SuperSpeedway

Table 4.6 POCs for Maintenance/Service of Systems

System	Agency	Name/Title	Phone
SouthernLINC	All Alabama	Self-Maintained	800 406- 0151
UHF Repeaters	AEMA	Self-Maintained, Fred Springall, AEMA Commo	205 282-2288
UHF Repeaters	Ala Forestry Comm.	AllComm & Roy Mott, AFC	256 249-2407 334 240-9322
VHF Base Station System	ADPS	Self-Maintained, Bill Graham, ADPS Commo	334 242-4139
VHF Repeaters	AL Dept of Natural Resources	Self-Maintained, Terry Boyd, Engineering Chief	334 242-3476
VHF Repeaters	Ala Dept of Corrections	Self-Maintained, Bill Haynes, Dir. Comm. Div.	334 567-1590
M/A-Com 800 MHz	Mobile EMA	Eric Linsley	251 574-4030
Motorola 800 MHz	City of Dothan	C&M Systems Motorola Shop	334 793-9023
800 MHz EDACS	City of Montgomery	Self-Maintained	334 240-4800
Motorola 800 MHz	Madison Co EMA	Sharp Communications	256 533-2484
Motorola 800 MHz	Calhoun/Talladega EMA	McCords Communications	256 237-6697
Motorola 800 MHz	Birmingham / Jefferson Co	AllComm	205 591-8804
800 MHz EDACS	Gadsden	Self-Maintained Craig Smith	256 547-6107
UHF Repeaters	Talladega SSW	McCords / AllComm	205 591-8804 256 237-6697

Gateways

As described earlier in this document, the state, with state and local practitioner participation, conducted intensive research and evaluation of the technologies available to provide bridging means between disparate communication systems. It was never the state's intent to get equipment that would provide only a short-term or interim solution. In contrast, it looked for a solution that could not only provide bridging capabilities, but one that was fully IP capable, provided excellent audio quality regardless of the types of communications system connected (LMR or IP). And was scalable, affordable and would provide long-term service and capabilities as expansion of communications interoperability and operability occurred.

The ACU-1000 and NXU technologies are state of the art interfaces providing bridging between disparate radio systems, console links, integration and migration between land mobile radio infrastructure and Internet Protocol infrastructure. They are versatile allowing seamless connectivity between all conventional, trunked analog or digital radio frequencies, iDEN, cellular, satellite and landline telephone systems. Looking at the "Systems of Systems" approach, there are many solutions that will allow achievement of that final goal. Those solutions are outlined in the SafeCom Interoperability Continuum and hybrids of those solutions are necessary to address needs. No one system exists to meet the interoperability needs of public safety today; in contrast, the adoption of different technologies and practices will allow achievement for interoperability in both the near and long term. Alabama is confident that use of gateways, in concert with other interoperability efforts, provides a stable, redundant and economical solution.

As deployed by the State of Alabama the ACU technologies exceed its black box solution perception. This system configuration consists of mobile radio infrastructure, tactical, mobile and fixed site installations and incorporating those resources into a wide area IP based deployment. The IP based WAIS system supports the ability to communicate over IP, breaking radio propagation limitations; it provides remote operation and configuration of the gateways and increases command and control capabilities locally, regionally and statewide.

As with any technology, setting up training, policies and procedures is supreme for successful operation. The state is committed the system users are properly trained and familiar with the procedures governing using the system.

All Alabama counties and Poarch Creek Tribe of Indians have JPS ACU-1000 gateways. Two counties are in the process of finishing installing their systems, and all others are in full operational status. Mobile, Calhoun, Jefferson, and Lee Counties have more gateways in operation besides the systems provided by the state. With excluding the two counties still under installation, all other counties within Alabama are **"Interoperable Ready"**.

As more gateways are integrated into the state's communications, there could be a possibility of having too many. The Governance Committees responsibility will be to control and oversee the placement of gateways. Regional coverage mapping is an excellent indicator to need and the use. CASM (see Glossary) and Virtual-Alabama Alabama are tools that will be invaluable in deciding the current state of interoperability. Alabama's implementation of CASM and Virtual-Alabama Alabama is underway. These systems integrated into the Wide Area Interoperability System will strengthen system management and administration governance adherence.

4.3 Standard Operating Procedures

Standardized operating procedures are an important part of a consistent communications plan within any agency. Everyone must know how to properly perform a communications task and must be aware that others involved must know how also. Setting up SOPs, with training on them, is the most competent way to know that everyone is doing the same job in the same way and manner. SOP's are guidelines on how the job is supposed to be done following a recognized format. In following the rules and procedures that SOP's provide, an agency can be certain that its roles are complete and carried out with the utmost accuracy and efficiency.

Most state agencies have SOPs in some form or fashion for jobs and equipment. Some may have existed for long periods of time and simply need upgrading and reemphasizing. Others may need to be deleted with new ones being developed, because of such items as new technology or best practices, for example. Most agencies have good SOPs and are often kept up to date. Currently, there is no formal statewide training procedure to ensure SOP use and maintenance, and no procedure to track or enforce them in any form exists. **This will be a role of the SEIC and its working committee, to review and recommend directions and planning.** All emergency response agencies should have up-to-date SOPs. Several M/A compacts exist between agencies and counties, and all include interoperable communications.

The most recent emphasis on SOPs has been forming county TIC Plans with standardized communications procedures included. These plans were developed by every county and Indian tribe. They are up to date and are NIMS/ICS compliant in every way. All TIC Plan SOPs are standardized throughout the state and have been used to develop this state plan and other regional plans. Final approval of these plans is projected by September 2008.

The Alabama Region 7 Tactical Interoperable Communications Plan during 2006, in compliance with SAFECOM's requirement that each state with a UASI or metropolitan area develop and exercise a Tactical Interoperable Communications Plan, showed the importance of approved SOPs. SOPs that were in these plans were indeed compliant in every way. SAFECOM's approval of these TIC Plans addressed their accuracy and accountability. The validation exercise further promoted their status and accuracy, ensuring that they were used and known by all involved. After Action Reports (AAR) on Alabama's full-scale exercise are available from SAFECOM or ALDHS SAA will certify to this finding. SOPs have not been developed at the state level. They are being developed regionally and eventually will be statewide.

Note: Regular agency exercises are the most effective way to confirm the use and maintenance of SOPs for any agency.

The following example from Region 7 Tactical Interoperable Communications Plan (TICP) shows procedure following NIMS/ICS Compliance for these SOPs. The State Plan matches this regional plan.

Section 4.5.5 Rules of Use.

- *The following rules of use must govern interoperable communications between agencies:*
 - *Connectivity between agencies must only be requested for working emergency events as defined by the SOP Interoperability Committee.*
 - *Agencies will identify themselves by agency name and designated call sign/radio designator. For example, if “505” from the FBI has requested communications with Birmingham Police Department “X-Ray 32,” and a patch has been set up, then “FBI 505” will call “Birmingham PD X-Ray 32” on the designated channel/talk group.*
 - *All radio traffic should be in plain language, especially during emergency incidents, although standard Ten Code can be used. The use of specific agency acronyms is discouraged.*
 - *All encrypted radio users will be required to work in the “clear” mode.*
 - *During emergency events with multiple agencies, the designated incident commander, may limit the interoperable channel/talk group to command level staff.*
 - *The requesting agency’s dispatcher, if able to monitor the radio traffic between units, should then advise the control point when the patch can be deactivated.*

EMA SOPs are available in each county EOC. In particular, each county COML is responsible for communications SOPs and their upkeep and development. This position is the key person for communications within the county. NIMS/ICS communications training for this position is imperative for interoperable roles to flow smoothly. Trained Emergency Response Teams are another excellent example of this training and effectiveness. State training guidelines for this position has not been fully developed. Further guidance of SAFECOM procedures is needed before undertaking this task. County COML’s have been identified and are the communications POC for this plan as listed. If these are not developed within a reasonable period, the state will develop its own as well as the ones already in use.

All Alabama counties use their gateway to ensure interoperability in emergencies or other scenarios that warrant this procedure, thus concentrating these SOPs at this level. SOPs are available for the public to review on request to the agency concerned.

The following is a list of the SOPs that address interoperable communications throughout the state.

Table 4.7 SOPs and Points of Contact

<i>SOP Name</i>	<i>Agencies Included</i>	<i>Disciplines Included</i>	<i>SOP Location*</i>	<i>Frequency of Use</i>
Region 7 TICP <u>NIMS Compliant</u>	All EM Agencies in 6 Counties	Law, Fire, EMA, Ambulance	Regional Contact: Dan Long or Director CCEMA 256 435-1340	Daily
Region 1 TICP SOPs <u>NIMS Compliant</u>	All EM Agencies in Mobile Co.	Law, Fire, EMA, Ambulance	Mobile Co Contact: David Roberts or COML 251 460-8000	Daily
Region 7 Homeland Security Task Force <u>NIMS Compliant</u>	Birmingham, Jefferson Co., Shelby Co.	Law, Fire, EMA, Ambulance	Jefferson Co EMA EOC Contact: Allen Kniphfer or Director JCEMA 205 254-2039	Daily, Events
TIC Plan I/O SOPs	All Counties	All	EMA/E911	I/O Events, Daily

4.4 Exercise and Training Plan

Exercise Plan

Exercises are the most efficient method of evaluating the current status of personnel and agency communications competence without participation in an active emergency or disaster. They are conducted and evaluated using the United States Department of Homeland Security (USDHS) **Homeland Security Exercise Evaluation Program (HSEEP)**. During FY 2006, ALDHS Director has required each county to complete a functional to full-scale exercise (FSE) and the state plan to be exercised sometime during the latter part of FY2007. During FY 2005, each M/A team had to do a tactical or full-scale Exercise. EMATS teams were a part of these exercises also, to ensure the full compatibility of these most important roles. After Action Reports (AAR) and Improvement Plans (IP) were published for all these exercises and are available for reference by contacting Sam Guerrero at AEMA EOC in Clanton, Alabama. The Alabama EMA Director also required each county to get an EMA Certification Process that involved taking the basic level of training of emergency management (EM) from the State EM Association. This included all 100, 200, 700 and 800 courses.

The state has a formal training program. The county exercises are in the finishing stages from the FY06 requirements from Mr. Walker. The state is conducting regional M/A exercises with interoperable communications at the forefront of the agenda. In counties that could not commit all employees to the exercise, their command and staff were taken off-site to other locations to work with others on the communications exercise and planning. All these exercises used HSEEP for its guidelines and functionality.

The Alabama Department of Emergency Management has offered Train the Trainer classes this year on the HSEEP Process. It has a contract group going around the state conducting these classes. Clanton, Mobile, Hoover, Decatur, and the Center for Domestic Preparedness, are locations where the training has been done so far. Montgomery, Florence, Anniston, Tuscaloosa and Dothan are scheduled to be done. The group doing the HSEEP training is certifying all students with these classes, so more and more are able to trickle this training down to all eventually.

AEMA has a calendar on its web site that lists all training and exercises scheduled for the immediately future. Anyone, including the public, can access the site and find this information readily. Frequent flyers also are received by the local agencies telling them of the upcoming opportunities.

Training has been made available to all agencies throughout the state. It has included such entities as the **Poarch Creek Indian Tribe** in Escambia County. They are active in this effort. Exercises with NGOs and Federal agencies such as NRC, FBI, DTA, TVA, AlaPowerCo, AlaGasCo and others have joined in this training. AEMA training has covered the entire state spectrum at one time or another. Two important exercises include the Radiological Emergency Preparedness (REP) exercises for Farley and

Brown's Ferry Nuclear Facilities and the Chemical Stockpile Emergency Preparedness Program exercises for the Anniston Army Depot communities. Some agency personnel also take part in scheduled community exercises in a support role [for example, Chemical Accident/Incident Response Assistance (CAIRA) exercises conducted in the CSEPP counties].

Training has been delivered to where ever the need exists. The local entity can do the training individually, or a contractor can be used. If the training is on a regional basis, the state will do it. This year, the state has conducted the Alabama Hurricane Workshop and the SE State Hurricane Workshop. From Montgomery south joined in the hurricane workshop. From Cullman north took part in an earthquake workshop, and the central part of the state joined in a weapons of mass destruction (WMD) workshop with M/A team support.

All exercises involve some form of interoperable communications among other subjects. NIMS/ICS is first in the format and necessary at the regional and state level. Interoperability is encouraged locally, and, with this statewide plan, it will become imperative at ALL levels.

All exercises are done under the HSEEP guidelines. These five volumes contain all information necessary to complete successful exercises with AAR and IP in place. A hot wash is always done immediately after each exercise to allow participants to voice their comments about the exercise and develop the strengths and weaknesses into an improvement process. The local agency is encouraged to handle their own improvement process and develop their "root causes" for future use and improvements. The agency's exercise director documents conduct and participation in exercises, and results are used to identify deficiencies in training or procedures and set up best practices for inclusion in future operations plans. The AEMA training section for record keeping and certification functions tracks these.

Training Plan

Alabama is working on a list of minimum standards with ICS courses the Emergency Management Institute (EMI) provides for all first responders - and specifically for emergency managers. This standard will improve knowledge of emergency management personnel. Whenever a county (customer service scenario) requests a course such as ICS 200/300/400 that cannot be taken on line, AEMA training section will coordinate the instructors to come to the area and provide the material. This might be contractors, training personnel, or subject matter experts, for example. The AEMA website has a training and exercise calendar available to anyone who wants this information. Events are scheduled and contact information given. It is linked with other federal sites to share information also.

Training is provided at the state EOC in Clanton. Courses such as EMITS (the state's emergency management incident tracking system) is offered several times a year. Public Information Officer (PIO) training prepares personnel to be a conduit and liaison

between local, state and federal partners and the media. Out-of-state training is also provided. The training section cuts down on red tape by offering a list of what is provided, where and what the cost incurs, and a thread for the application to be submitted and processed for correct approval. Training for 2008 is being planned now with federal and other NGO partners. DHS has not been asked to participate yet, but this will occur as the process continues. All local agencies have been polled about what is needed, how the state can provide this, and what results are expected.

The AEMA training section is managing an EMA Certification based on minimum requirements for 15-20 professional development courses. The state legislature is passing some standards for this certification. The Alabama Association of Emergency Managers (AAEM) is involved with this certification, as they will serve as certifiers for this process. This will serve to legitimize and stress the importance of standardization of agencies and their roles.

Training takes place at various places around the state. Much is accomplished at the Center for Domestic Preparedness (CDP), the Emergency Management Institute (EMI) at Emmetsburg, Maryland, Emergency Policy Institute at Shelton State in Tuscaloosa, Alabama, and other places around the state and country. Information is delivered to all agencies about the training that is available, including when it is being given, where it is taking place, who is trained, criteria of the training, and how much it may cost, if anything. This list is available for all disciplines and concerns that may be present are addressed. EMA Directors are especially receptive to this information and are the key to its distribution.

Alabama has a formal training program. All delivery methods are used, such as hands on, classroom, breakout sessions, and lectures. They may also involve trips to EMI or the National Fire Academy. An annual Response & Recovery Workshop and boot camp for EM Directors is given at Regional Emergency Operations Center. Courses such as all 300/400 are available also at the county's request. Coordination with the surrounding areas is highlighted so efficiency and coverage are carried out. Customer service is the key to a successful program, and the State is the high point of this service. The AEMA Training Department works for the counties. Training is delivered regionally, at the state EOC, at all state agencies and within the counties themselves. Wherever it is requested, it will be delivered.

The **Poarch Creek Indian Tribe** has been involved in this over the last several years. Much time has been spent on the reservation, and the State has paid for some of their personnel to attend training both in state and out-of-state.

A "needs" study is being implemented in the state at the present. When completed, it will provide a "picture" of needed training and what is needed. This will be invaluable for planning and funding purposes, as well as for certification standards moving through legislation at the present.

Communications Leader (**COML**) Training is delivered by the IT section of the AEMA. It is a role of the COML of each county agency, and especially the “keeper” of the regional vehicle, to schedule, govern and certify this training. It is in the first stages of becoming a viable and routine process. Thoughts are to move this specific training into the training section soon, but expertise lies within the IT for the present. At least two training exercises are held each year to promote common familiarity and technology maintenance for the vehicles and their COMLs.

Training certifications are tracked in a state database in which all records are available. Hard copies of training given are also kept in the files for reference at the EMA EOC. Yearly reviews of these records, and rationalizing retraining and needs, begins with the turn of the fiscal year. With the new legislation in progress, much more emphasis will be placed on this effort. State field personnel collect this data from all agencies and return it to the state EOC for keeping and recording.

Incentives for achieving levels of training are being developed, especially about the new legislation taking place. Increases in pay for certification are just one gain of this initiative. It is important to stress that state funding can be withheld for a county agency not meeting minimum standards. This is especially true in meeting the NIMS training standards.

The importance of training and exercises cannot be overemphasized, especially in today’s world where emergencies and crises of all kinds happen in the most unexpected places and time frames. Alabama is doing its part in both of these most important areas.

Table 4.8 Statewide Workshops/Exercise Calendar

<i>Date</i>	<i>Event</i>	<i>Contact</i>	<i>Audience</i>
3/5-9/2007	Regional Commo Vehicle Exercise – DeKalb County	Fred Springall – AEMA	All Regional COMLs
10/2/2007	HSEEP Workshop	Sam Guerrero-AEMA	All Agencies
10/8-11/07	Regional Commo Vehicle Exercise – Montgomery	Fred Springall – AEMA	All Regional COMLs
10/16/2007	HSEEP Workshop	Sam Guerrero-AEMA	All Agencies
10/23/2007	BFNPP Remedial Exercise	Sam Guerrero-AEMA	All Agencies
10/29/2007	New Madrid Catastrophic Earthquake Workshop	Amanda Capps/Sam Guerrero-AEMA	Selected Agencies
10/30/2007	Montgomery Co Severe Weather Exercise	Anita Patterson-MCEMA	MC Affected Agencies
11/6/2007	Central Alabama Regional Mutual Aid Team WMD Workshop	Sam Guerrero/Bill Atchison-AEMA	Central AL Agencies
11/7/2007	CSEPP CAIRA Exercise	Sam Guerrero-AEMA	CSEPP Counties
11/14/2007	CSEPP MSEL Conference	Jimmie Bell-FEMA/Sam Guerrero-AEMA	CSEPP Counties
12/4/2007	North Alabama Regional Mutual Aid Team Earthquake	Sam Guerrero/Bill Atchison-AEMA	North Ala Agencies

State of Alabama
2007 Strategic Communications Interoperability Plan

	Workshop		
1/8/2008	CSEPP R&R Tabletop Exercise	Jimmie Bell-FEMA/Sam Guerrero-AEMA	CSEPP Counties
2/6/2008	Farley NPP Practice Exercise	Sam Guerrero-AEMA	North Ala Agencies
2/13/2008	CSEPP CAIRA Exercise	Sam Guerrero-AEMA	CSEPP Counties
3/5/2008	CSEPP FEMA Evaluated Exercise	Sam Guerrero-AEMA	CSEPP Counties
3/12/2008	Farley NPP FEMA Evaluated Exercise	Sam Guerrero-AEMA	North Ala Agencies
5/1/2/2008	National Training And Exercise Conference	Sam Guerrero/Kyle Eskridge-AEMA	All Agencies
8/14/2008	CSEPP CAIRA Exercise	Sam Guerrero-AEMA	CSEPP Counties
6/10/2009	Brown Ferry NPP FEMA Evaluated Exercise	Sam Guerrero-AEMA	North Ala Agencies

Table 4.9 Statewide Training/Workshop/Conference Calendar

Date	Event	Contact	Location/Audience
1/29-2/2/07	G265 Inst Delivery Skills	Kyle Eskridge – AEMA	Clanton
4/17-19/07	G290 Basic PIO	Kyle Eskridge – AEMA	Mobile
2/7-9/07			Tuscaloosa
7/17-19/07			Clanton
1/16-18/07	G300 Intermediate ICS	Kyle Eskridge – AEMA	Cullman County
2/23/2007			St. Clair County
3/29/2007	G400 Advanced ICS	Kyle Eskridge – AEMA	St. Clair County
4/3-4/2007			Blount County
3/5-9/2007	Regional Commo Vehicle Training – Dekalb County	Fred Springall – AEMA	All Regional COMLs
1/22-6//07	G300&400	Kyle Eskridge – AEMA	Madison County
2/5-6-2007			Tuscaloosa County
2/19-21/07			Huntsville
2/20-21/07			Poarch Creek Indians
4/10-13/07			Shelby County
4/23-26/07			Huntsville
4/24-7/07			Lawrence County
5/1-4/2007			Elmore County
6/5-8/2007			Cullman County
6/11-2/70			Russell County
7/31-8/1/07			Limestone County
9/11-2/2007			Limestone County
9/11-4/2007			Blount County
9/24-7/2007			Autauga County

State of Alabama
2007 Strategic Communications Interoperability Plan

10/1-5/2007			Covington County
5/31/2007	ICS 402 Sr. Exec. & Officials	Kyle Eskridge – AEMA	Lawrence County
7/9-13/07	L449 Train the Trainer	Kyle Eskridge – AEMA	Morgan County
9/17-20/07			Jefferson County
5/25/2007	E-Grants Training	Kyle Eskridge – AEMA	Clanton
6/18/2007	DRC Training	Kyle Eskridge – AEMA	Clanton
6/5-7/2007	L548 COOP Training	Kyle Eskridge – AEMA	Clanton
7/10,19,23	Hurrevac Basic	Kyle Eskridge – AEMA	Clanton
7/11,20,24	Hurrevac Advanced	Kyle Eskridge – AEMA	Clanton
1/9/2007	EMITS	Kyle Eskridge – AEMA	Clanton
4/19/2007			Clanton
5/31/2007			Clanton
6/14/2007			Clanton
7/17/2007			Clanton
5/7-11/2007	R & R Workshop	Kyle Eskridge – AEMA	Clanton
9/17-20/07	L449 – Train the Trainer	Kyle Eskridge-AEMA	All Agencies
9/18-19/07	AAEM Summer Conference	Eddie Hicks-AEMA	All EMA Directors
9/24-25/07	PPE & Decon Training	Greg Jackson/Kyle Eskridge-AEMA	Gadsden Fire Dept.
9/24-26/07	G-300 Intermediate ICS	Kyle Eskridge-AEMA	AEMA Region 5
9/26-27/07	G-400 Advanced ICS	Kyle Eskridge-AEMA	AEMA Region 5
10/31-11/1/2007	Creating Vigilant, Prepared, and Resilient Communities for Homeland Security	Michael Harter Jeff Co EMA	All Agencies/Citizens
10/1-3/07	G-300 Intermediate ICS	Kyle Eskridge-AEMA	TBD
10/3-4/07	G-400 Advanced ICS	Kyle Eskridge-AEMA	TBD
10/11/2007	EMITS Training	Kyle Eskridge-AEMA	County Personnel
10/11/2007	EMITS Training	Kyle Eskridge-AEMA	State EOC Personnel
10/29-11/2/2007	New Madrid Catastrophic Earthquake Workshop	Amanda Capps-AEMA	TBD
11/13-15/07	G-290 – Basic PIO Training	Kyle Eskridge-AEMA	All Agencies
10/29-11/2	New Madrid Cat EQ WS	TBD	Florence

4.5 Usage

The most used M/A frequency in Alabama is the State Net 155.010. It is used daily, and this is the best example of interoperability training/use that can be done. Training is done by region and is drilled down from there. The Regional Interoperable Vehicle COML is the main person involved with this training. It is COML's job to drill down to the local agency personnel for training in communications and, in particular, interoperable communications.

One individual's radio also works in the next county's I/O system is interoperability in its simplest state, and this is used often. The training in technologies and SOPs would happen daily.

There are two Mutual Aid Organizations within the state. These organizations are active in their endeavors and have been valuable to agencies working together in all parts of the state. They promote cooperation and efficiency and are role models of their represented agencies in interoperability communications and M/A of all kinds.

Several annual events in the state promote interoperable communications. The major universities football games bring all types of communications together many times during the season. Support agencies are plentiful during these events, and much is accomplished in working together for one goal. Other events, such as the Talladega Superspeedway Weekend, bring over 40 agencies together twice a year with the provision of law enforcement, fire control and emergency medical services. This is the **height of interoperability**, and this works well. M/A agreements exist between these agencies and have to be approved each year. Large venues typically call on help from other agencies on a frequent basis. If further aid is needed, whether at one of these places or during a crisis, a request will be sent from the local EMA EOC, and such deliverables (for example, regional vehicle) will be provided. This procedure is common statewide in all local EMA EOPs and is a standard in its operations. It is important to note the regional vehicle has the ability to interoperate with assets coming in from other states and federal resources also.

Interoperability is promoted daily and monthly to all EMAs throughout the state by monthly patch testing. Daily patching occurs in many agencies and is a routine function of interoperability between agencies. Disparate radio systems require this for communications, and the gateway is the provider. Regional and local repeaters are used as the core of this daily activity and monthly testing. Along with this patch testing, monthly drills are needed to promote and establish individuals who are responsible for operating the gateways. Multiple operators are needed for each agency. This training/use is the easiest way to gain trained operators for the communications equipment, and frequency of use produces good results. There is a need to outline these for minimum guidelines for the local agencies, and this is a role of the local and regional governance committees. By setting up minimum guidelines for the operation of the equipment, this will force upward occurrence of use, and, thus, establish confidence and productivity in well-trained operators and equipment readiness.

Recent incidents have highlighted the need for more of this use. An example would be the recent tornado damage in Enterprise, Alabama. In response to this emergency, locals who use SouthernLINC daily tried to use this as their primary means of communications. This system was not designed to handle the increased load and would not allow all the people who wanted to talk. After the early interruption and the arrival of the regional vehicle, it was “discovered” that if the existing communications equipment available (radios) had been used, there would not have been a problem. Communications resumed at a normal high efficiency immediately after this step had been completed. More and more of incidents like this exist over the nation and only go to prove how important exercises/drills and usage are in establishing trained operators and “ready” equipment and systems.

5 Strategy

Alabama's Statewide Vision: To strengthen public safety communications interoperability to create a coordinated and integrated voice/data communications platform, with the technology, equipment, and procedures necessary to allow public safety agencies to communicate to safely, effectively, and efficiently protect the quality of life and property in all instances in Alabama.

5.1 Interoperability Vision

Building on Alabama's Statewide Vision, this plan outlines the goals, objectives and initiatives for statewide communications interoperability. The intent of these goals, objectives and initiatives are to reach a working environment where first responders can communicate seamlessly across jurisdictions and disciplines.

With this vision, loss of life and damage to property will be minimized because public safety responders have a means to communicate effectively to prevent, protect and respond to any emergency, disaster and catastrophic event.

The vision of the future state of communications within Alabama is to describe the desired outcomes and capabilities about communications among emergency responders in Alabama.

The following is a list of desired outcomes that support Alabama's vision for communications and interoperability.

Technology:

- To adopt national technical standards for communication and interoperability as the basis for planning, management, training and funding.
- To encourage all agencies to have mutual aid frequencies programmed in radios. This will ensure all agencies have the ability to use designated mutual aid frequencies. This objective can be achieved by requiring future equipment purchases with grant funding met this requirement.
- To review current infrastructure to determine the lack of radio frequency coverage. Fragmentation of infrastructure and frequencies are a critical part affecting interoperability.
- To enhance statewide voice and data communications interoperability between public safety jurisdictions and disciplines.
- To encourage agencies to use scalable, redundant communication systems that are secure and can be augmented with video, satellite imagery, structural occupancy and plans, GPS, and radio-to-telephone bridging.
- To define public safety requirements, solutions and products that meet the needs of responders and response agencies without vendor influence.

- To ensure every citizen of Alabama has access to a functional and accurate E911 service and encourage mass citizen alert capabilities.
- To enable Alabama's first responders to be leaders in defining standards to vendors.

Management and Coordination

- To create a single organization for communications and interoperability deliberations, standards, training, data resources, technical assistance and making grants. The system should be inclusive to ensure hospitals, schools, utilities and others are integrated and use a centralized (or regionalized), scalable, unified incident command structure.
- To create clear and consistent statewide standard operating procedures for incident planning, communications, response, and review.
- To support communications equipment procurement that is practitioner-driven and based on common technical needs and strategy.

Training and Education:

- To ensure standardized training for all agencies occurs at all levels for regional and local implementation (for example, 10-codes, clear text, and shared language).
- To encourage multi-disciplinary training reinforces collaboration and sharing of best practices.
- To assist in providing innovative tools and delivery methods (web-based education) to expand the impact of training.
- To advocate that Alabama's public safety community is fully credentialed to national standards.

Political Realm:

- To guarantee legislators and other elected officials are well educated on, and responsive to, the complexities and urgency of communications and interoperability issues.
- To encourage executive level support for communications and interoperability that transcends parties and administrations.

Resources and Funding:

- To develop a defined atmosphere in which state and federal funding is available, consistent and aimed at communications equipment acquisition, maintenance, and operations.
- To ensure funding is tied to interoperability and adheres to national and state standards.

5.2 Mission

Mission: The mission of the Alabama Communications Interoperability Plan is to establish innovative and consensus-based approaches to mission-critical wireless communications technology and interagency partnerships that lead to seamless communication among public safety agencies serving the citizens of Alabama.

Alabama statewide interoperability must include nontraditional and private public safety agencies, recognize the complexity of communications to address disciplines, jurisdiction, interagency frequencies, and should be supported by an effective incident command structure and standardized operational procedures.

Five Key Areas Required for Achievement of the Interoperability Mission and Vision:

1. Coordination and Partnerships
2. Funding
3. Spectrum
4. Standards (both policy and operational)
5. Technology

To achieve effective communications and interoperability statewide, the following critical issues must be overcome to achieve this mission:

- **Political Motivations/Legislation** – Interoperability is not a voter issue, and many politicians support more visible issues. Government officials/leaders must be educated/motivated on objectives/goals and critical issues to achieve interoperability, the vision/mission of this plan.
- **Funding Limitations** – General lack of local funding and grant funding does not allow for system maintenance, upgrades, and operations.
- **Technical Constraints** – Vendors have the upper hand in this market, and they fail to produce and sell open platform systems that meet practitioner needs; constantly advancing technologies make existing and new systems obsolete quickly.
- **Public Safety Culture** – Egos and turf battles get in the way of building interoperable solutions.
- **Power and Control Issues** – The resistance of agencies to share or give up control of communications systems.
- **Individual Over Statewide Needs** (“Big Hat” vs. “Little Hat” Problem) – Many public safety officials choose to defend their individual roles versus considering statewide and regional needs and solutions.
- **Diverse Terrain** – Alabama has coverage issues that require solutions that are more complex. This plan’s strategic initiatives will address this coverage issue.

5.3 Goals and Objectives

The following is a list of overarching goals and objectives that support Alabama's vision for communications and interoperability. More defined goals and objectives for the interoperability Initiatives are outlined under the Initiatives Section 5.4.

Implementation Goal: Create and implement an all out effort toward improving the willingness to share communication assets among agencies. Agencies have tended to be territorial in the past, and this must change in the future. All state agencies fall under the same centralized governance structure and have not had an overall goal for interoperability sharing in the past. Shared assets must be a desired priority of high value. All of this must be carried out to accomplish the strategy of this plan, and creating such factors as the SEIC will prove to be a "key" to this effort.

Objective: Achieve, as close as possible statewide, coverage for voice and data communications response networks for all first responders.

Tasks:

- Determine the present baseline status of statewide communications. This involves an inventory of all tower space from all agencies in use.
- All counties will have a complete TIC Plan by **June 2008**, which will give a complete picture of statewide communications. TIC Plans are living documents, and updating and maintenance is the most important factor in reliability and response.
- On a prioritized basis, to ensure that all responding agency infrastructure coverage is expanded, improvements and added construction (for example, repeaters), will be carried out to meet interoperability requirements. Strategically located simplex installations can also cover the desired area.
- Include measurement of operability at all levels so interoperability can occur in voice and data.

Objective: Implement all statewide interoperability efforts/initiatives, which include the following:

Tasks:

- All public safety and other responding agencies will have complete statewide radio coverage (for example, Forestry, Conservation, DPS, DPH, ABC Board, AEMA and others). Operability must be measured to achieve interoperability.
- All applicable public safety and responding agency radios will have current statewide mutual aid and interoperability channels programmed into them, and training in use of these frequencies will be carried out. This will ensure that acceptable coverage will exist to ensure interoperability.

- Create the necessary radio caches to comply with PSIC grant requirements. Ensure that all these radios are programmed with M/A and I/O channels and all personnel are trained in the use of them. The SEIC and the working committee will determine placement of these.
- All counties now have at least one Raytheon JPS ACU-1000 gateway, and training in the operation and use of this equipment will be expanded to include all relevant agencies within each county.
- NIMS will be performed to all levels of first responders, first receivers, and chief executives at all levels of government.
- Implement Project 25 (P25) Standards throughout the state.
- Ensure that all agencies recognize the importance of using plain language in emergency situations instead of Ten Code.
- Standardized SOPs must be in place across all agencies that will standardize how functions are done and must meet NIMS/ICS Standards.
- Technology must be upheld and expanded so the latest will at least be identified and can be available for upgrading when the funding is available. Sharing of this technology is important to every agency remaining up-to-date on efficient use of its equipment/systems.
- Governance structure is one of the most vital parts of the strategy/vision/mission statements of this plan. The State Governance Committee must be active, and special emphasis will be placed on getting the regional and local governance committees active also.
- Institute an in-depth process to find out if a one-radio system is needed for the state of Alabama that will be performed before establishing that particular goal. This analysis will be scheduled during 2008.
- The ability to communicate with any desired entity will exist regardless of whom the person is.

Establishing governance committees in each county is desired by this plan. These committees will become active in governing the county communications roles and will take part in regional committees. These bodies will represent public safety practitioners, and all disciplines, to ensure the interoperability program is locally driven. The State SEIC will be the statewide monitor and comptroller for these initiatives and as the primary steering group for I/O communications and its relations to all surrounding states.

Completing an inventory of all agencies' tower space will identify any coverage shortages. Having Communications Assisted Software Management (CASM) as a tool for this inventory will be invaluable. This has been gained and implementation is in process now. To be able to use federal grant dollars in the most effective fashion, the prudent direction would be to add repeaters on towers that are already in existence and/or use repeaters that are not in use at the present and could be converted as needed. Building towers is an expensive part of projects such as these, and sharing existing tower space is an excellent and cost-effective problem solver for communications statewide between all agencies. There are many "dead" RF spots

throughout the state affecting several agencies at the present, and a simple repeater or a simplex installation installed on an existing tower of another agency might solve this.

The ultimate goal is to have a statewide system that will include interoperable channels in a one-radio system that is unified. It is important that state agencies have interoperable discussions on a system of systems that will produce a statewide plan of discussion on possible problems with that concept.

This plan is intended to be a comprehensive road map rather than just a funding document. In order for something to be funded, it has to be included. Interoperability coverage will be specifically addressed in the more detailed Investment Justifications (IJ) in Section 5.4 of this plan.

5.4 Interoperability Investments

The following investments will strengthen and enhance interoperable communications in Alabama. Some investments will be addressed utilizing PSIC Grant funding; others will be funded through local, state and other federal funds. Investments utilizing PSIC Grant funds will be submitted through **Investment Justifications (IJ)**. Projects funded by the PSIC Grant Program will only be used for expenses as allowable under the PSIC grant guidance.

Each of these investments will support implementation of the Statewide Interoperable Communications Plan and will be used to eliminate short falls in the plan. Each investment will provide background and preliminary steps, a project description and description of need. Also included will be strategy, priorities, milestones, challenges, expected outcomes, cost effective measures and sustainability. Each investment ultimately supports the visions, missions, goals and objectives of this plan. The jurisdictions served, investment governance, stakeholders, and investment project management for all investments are outlined below. More detailed information for these areas is detailed in other sections of this plan.

The jurisdictions served by these projects are the seven Alabama Homeland Security / AEMA Regions, which represent individual counties. All State of Alabama agencies, tribal regions and counties are served by this Investment. They are multi-disciplinary projects (e.g., law enforcement, fire service, public health). The disciplines served by these projects are Communications; Fire; Law Enforcement; Rescue; Emergency Medical Services; Hospitals; Emergency Management; Hazardous Materials; Transportation; Utilities and others.

The Statewide Executive Interoperability Committee (SEIC) has been charged with the responsibility for statewide governance of all interoperable communications efforts. SEIC was established by the Director of ADHS under the authority given by state statute. SEIC provided overall guidance to and approved the state interoperability plan, including the setting of goals and priorities. It will continue to review the overall progress as the plan is implemented and provide direction as needed. SEIC provides policy level direction for matters related to planning, designing, and implementing guidelines, best practices, and standard approaches to address Alabama's public safety communications interoperability issues. SEIC consists of seventeen representatives from state, local, tribal, and non-governmental public safety agencies, thus including all stakeholders. SEIC has appointed a working group that will provide expertise to the local agencies for implementation and will use its influence to obtain cooperation and support from all involved agencies. This working group participated in several workshops to develop the SCIP and PSIC initiatives, which were approved by SEIC. **An MOU has been signed by local agencies and is found in Appendix J of this plan.**

Participating agencies include all emergency response agencies, public health, and jurisdictions with first responder responsibilities, including disciplines and jurisdictions

from throughout the state. Points of contacts were identified for each county and state agency. Involvement from private sector security agencies was solicited, and all respondents were included. Meetings were held with representatives of these agencies, and all participated in developing the statewide plan.

The Director of the Alabama Department of Homeland Security will be responsible for the overall project. He will rely heavily on the existing state Homeland Security (HS) Task Force to provide stakeholder cooperation and participation, and to provide overall coordination in implementing the HS strategy for the state.

The Director will hire a full-time communications specialist who will serve as the Project Manager for this Investment and be involved in the day-to-day management of all interoperable communications projects. This individual is skilled in technical planning and management and will take operational charge of each project, including accountability, grant and subcontract administration, purchasing and budgeting.

This Project Manager will have close interaction with the Statewide Executive Interoperability Committee (SEIC), which has the responsibility for statewide governance of the interoperable communications effort. SEIC consists of seventeen representatives from state public safety associations and other government agencies. SEIC has appointed a working group that will be the local basis for interoperability communications implementation and will use its influence to obtain cooperation and support from all involved agencies. This committee participated in several workshops to develop the SCIP and PSIC initiatives, which were approved by SEIC.

Implementation of this Investment will also be coordinated with assistance of the Alabama Mutual Aid System Executive Advisory Committee and 68 local homeland security jurisdictional points-of-contact. These individuals are skilled in the communications needs of their agencies and the interactions essential to regional and statewide communications.

Investment Name: Establish a P25 Compliant Statewide Communications System

Project Narrative

This Investment will create a P25 compliant statewide communications platform that allows interoperable communications over 85% of emergency response agencies. At present, over 90% of state and local agencies operate on their own system that cannot communicate with each other without a shared gateway. This Investment will build on current infrastructure to enhance public safety communications interoperability and create a coordinated and integrated voice/data communications platform, with the technology, equipment, and procedures necessary to allow the various public safety agencies to communicate effectively. Additional equipment will allow all agencies to communicate via mutual aid channels over a common system, which will create a more coordinated response from mutual aid resources throughout the state. It will also ensure communications between responders and local/state emergency operations centers. The results of this Investment will be evaluated consistently with the Interoperability Continuum based on the state's annual grading with regard to the five areas of the continuum. The results from county and statewide exercises will be the basis of the performance measure of the state plan's implementation and the success of this Investment.

Historical Funding

This Investment has not had funding requested or received, but has been part of the SCIP. Previous funding has not been sufficient to undertake this Initiative, but communications equipment that will support this new initiative has been purchased in the past in anticipation of this Investment. This Investment will integrate existing equipment into a new-shared statewide system.

Description of Need

Significant infrastructure has been procured from state and federal funding to provide the foundation for this Investment. This infrastructure consists of towers, network connections, P25 compatible radios, and other supporting equipment. Currently, there is a standard set of interoperable frequencies available and programmed into most responders' radios that are available for use during disasters, enabling responders limited communications on common frequencies. This also provides state and local responders' radios and county EMA offices with point-to-point communications. Standard Operating Procedures being developed by each county's TIC Plan are consistent throughout the state. Existing infrastructure is not sufficient for consistent communications between responders and local/state Emergency Operations Centers. Currently, responders must rely on simplex frequencies to communicate with other responders and with emergency operations centers. This Investment will eliminate current shortfalls by enabling responders to communicate over greater distances through a common communications system utilizing integrated repeaters and

networked connections. Based on an analysis of current RF coverage, this was the only feasible method of linking existing equipment. This Investment will support all PSIC objectives.

Statewide Communications Interoperability Plan Objectives

A major objective in the state plan is to achieve statewide coverage for voice and data communications networks for all first responders (Sec. 5.3). The ultimate goal is to have a statewide system that will include interoperable channels in a unified system. Since this will create a “system of systems,” close coordination was sought every step of the way to assure that all stakeholders will be properly served. This involves first the completion of an inventory of all agencies’ tower space to identify current coverage areas and deficiencies (Sec.5.3). CASM has been approved, and will be used in conjunction with Virtual-Alabama, a Google Earth Enterprise Platform, to determine current resources and deficiencies. Information provided by counties through the completion of a TIC Plan will assist in completing this task. County TIC Plans will be completed by June 2008. To use funds in the most effective fashion, repeaters will be added on towers that are already in existence if possible.

Technology Priorities

A major objective of the statewide interoperability Investment is to improve radio spectrum efficiency to enable networks to have enough capacity to handle calls and to allow for growth. This is essential in areas where the spectrum is crowded and it is difficult for agencies to obtain licenses for additional radio frequencies. This will be accomplished, for example, by using a 6.25 KHz equivalent bandwidth. To assure feasibility, there has been a complete survey (included in the SCIP) of current interoperability channels in use, and the statewide Investment will assure that these channels are exploited to the extent possible in the near term, while looking to narrow band alternatives as the statewide system matures. The most cost-effective measures will be employed. For example, wherever possible existing towers will be used to add repeaters as opposed to constructing additional towers. In addition, all local and regional purchases of communications equipment will be reviewed centrally to assure that it is the most cost-effective possible. Project 25 (P25) standards will be required for all build-outs by statewide and local agencies for both procurement and use of communications equipment. Narrow banding can be more readily achieved as a result of these purchases because P25 equipment supports narrowband operations.

All Hazards Mitigation Priorities

The state’s SCIP demonstrates the awareness of the high-risk areas within the state. Although quite different in the vulnerability faced, these pockets of exposure are distributed across the state. For example, the gulf port city of Mobile faces hurricane and major seaport vulnerabilities as well as those of any major metro area of this size. While hurricanes are not prevalent further north, other weather events, major military bases, sports events and munitions dumps pose their own vulnerabilities. This

supports the argument for the statewide Investment that will be built out from the current metropolitan areas to build on strength while addressing urban vulnerabilities. This Investment provides the communication so critical to mobilization by providing: (1) seamless communications across participating county boundaries; (2) sustained local and regional communications capabilities; and (3) uninterrupted flow of critical communications among responding multi-disciplinary and multi-jurisdictional agencies during a homeland security all-hazards incident or event. This enables decision makers to identify the most critical emergency needs, and to provide resources to affected areas in the most timely and effective manner.

Milestones

Milestone #1

Perform IC Assessment. This will determine the baseline status of statewide communications and complete the inventory of all tower space from all agencies in use to determine additional network requirements for all 68-homeland security jurisdictions. It will assess their current IC bridge operations and determine the optimal way to achieve network connectivity for all jurisdictions. The previously mentioned exercise will be performed to validate the pre-exercise assessment findings.

Start Date: 1 Oct 2007

End Date: 1 Mar 2008

Milestone #2

Determine Infrastructure Requirements. This will require close coordination of the regions, the state EMA, and candidate network providers to establish the protocols and procedures for network connectivity. This will be determined by the technical committee. It is essential that these are determined before any equipment is specified since this will establish the essential ground rules for interoperability.

Start Date: 1 Jan 2008

End Date: 1 Mar 2008

Milestone #3

Design Infrastructure Requirements. Based on the state assessment, this will define needed upgrades in existing network infrastructure within the state to provide connectivity to proposed new equipment. In those cases where deficiencies or special needs are identified, it will address those needs. It will take into consideration resource limitations and priorities established by the project governance.

Start Date: 1 Mar 2008

End Date: 1 Apr 2008

Milestone #4

Acquire Equipment. Based on the requirements document, this milestone will acquire and install equipment, and perform individual operational training for any enhancements to existing network and communications infrastructure. It will also build out any new infrastructure that has been identified as required. This will also include immediate training on this equipment that is needed for its operation.

Start Date: 1 Jul 2008

End Date: 1 Sep 2010

Milestone #5

Acquire Network Connections. Based on the requirements document, negotiate for and acquire the specified connectivity from alternative sources.

Start Date: 1 Jul 2008

End Date: 1 Jun 2010

Milestone #6

Conduct Ongoing Training. This will be above and beyond the immediate training that comes with the equipment, usually from the manufacturer at installation time for operational and maintenance purposes. Training will be more formalized and will involve group participation.

Start Date: 1 Feb 2010

End Date: 1 Jun 2010

Milestone #7

Conduct Exercises. These will be performed when a reasonable degree of maturity has been attained and the deployment has progressed to a point that a sufficient number of jurisdictions may participate.

Start Date: 1 Jan 2009

End Date: 1 Sep 2010

Investment Challenges

Challenge #1

Building System out with Available Funding

Probability: Medium

Impact: High

Mitigation Strategy:

Existing infrastructure will be utilized to offset the limited funding available for the project. Significant infrastructure (e.g., towers, network connections, and P25 compatible radios) has been procured from state and federal funding to provide the foundation for this Investment.

Challenge #2

Obtaining the Most Recent Technology Available to the State

Probability: Medium **Impact:** High

Mitigation Strategy:

The goal is to assure that all agencies have the most cost-effective interoperable solution possible. This challenge will be mitigated by conducting a Request for Information (RFI) involving all potential providers so that the full range of alternatives can be considered. This will involve state agency providers as well as private interests.

Challenge #3

Cooperation between Technical Personnel

Probability: Medium **Impact:** High

Mitigation Strategy:

To mitigate this challenge we will: 1) assure that all involved personnel understand and provide input to the state's SCIP plan; and 2) seek to build understanding in identifying existing infrastructure and shortcomings by conducting common workshops to determine strengths and weaknesses. In particular, workshop sessions will be targeted at enabling technical personnel to get to know each other and establish interpersonal relationships and interdependence.

Challenge #4

Obtaining network connectivity at reasonable cost

Probability: Medium **Impact:** High

Mitigation Strategy:

Explore all connectivity options, including the two networks currently being used within the criminal justice community. Also, conduct a request for information (RFI) involving private providers to obtain information on all alternatives.

Challenge #5

Political motivations and public safety culture issues

Probability: High **Impact:** Medium

Mitigation Strategy:

This has already been implemented by bring representatives from each of the stakeholders organizations to the table. These meetings will continue, as will the efforts with the legislature and other political entities to assure that the plan is understood and approved by as many constituents as possible.

Challenge #6

Diverse terrain

Probability: High **Impact:** Low

Mitigation Strategy:

Alabama has coverage issues that require solutions that are more complex. This Investment will address these coverage issues by applying CASM and extending it by the use of Google Earth Enterprise (Virtual Alabama) to determine the areas that are not covered and the optimal approach to providing coverage.

Outcomes

The build out of this Investment enables responders to better communicate with other responders and local/state emergency centers. This will have the following impact on operations: (1) increase ability to identify, locate and apprehend terrorists to prevent an immediate subsequent strike; (2) increase ability to assess the total scope of the (all hazards) problem; (3) increased knowledge of the locations of the most critical needs for remedial/mitigation assets; and (4) increased knowledge of the location of current mutual aid assets. All of these benefits can be obtained by this Investment, and success will be measured by the effective operation of the network itself.

The impact of this Investment will be measured through real-world events and exercises as documented in after action reports related to communications and onsite incident management. On-site incident management becomes impossible without effective communications. The determination of the effectiveness of the communications equipment and training will be measured during the exercises. Scenarios will be created that will stress test the communication capabilities to assure that they meet the requirements established. Logs will be maintained of both the successful and unsuccessful communication attempts to track progress and surface problems.

Progress in implementing this Investment will be assessed by the following performance metrics that will apply to all jurisdictions within the state: 1) during non-emergencies sustained local and intrastate regional communications flow at least 95% of the time, and 2) during emergencies, sustained local and regional communication flow should be between 85 to 90% of the time. The outcomes of the project itself will

be assessed by the following metrics: 1) at least 90% of the state's communication specialists trained on the communication plan, 2) equipment requirements defined, installed and programmed, and 3) two means of communications are identified and tested between local agencies and the State Emergency Operations Center. This will include both the statewide platform and WAIS capabilities.

Cost-Effective Measures

The following cost-effective measures will assure the success of this Investment:

(1) To reduce cost a request for information will determine that the Invitation to Bid (ITB) document is definitive and effective, and, as many vendors will be brought to the table as possible to assure the most competitive bid process for all goods and services. The following items will assure effectiveness.

(2) The coverage assessment will be conducted to discover wherever possible areas that can be covered by existing towers as opposed to the creation of major new infrastructure.

(3) The coverage assessment will be performed using the most current tools available; e.g., CASM capabilities will be extended by the use of Google Earth Enterprise (Virtual-Alabama Alabama) to find optimal methods toward providing coverage.

(4) To the extent possible, the P25 standard will be required, and as many systems will be migrated to this standard as is possible within the funding constraints of the project.

(5) All standards employed will be flexible and open architecture.

(6) The overall approach will be based on a statewide strategy that has already been developed and will continue to evolve through a broad base of stakeholder support.

(7) Regular agency exercises will be performed to validate and improve the effectiveness of the specific equipment and training that is implemented.

(8) The equipment and training will be integrated into the current incident command structure and standardized operational procedures.

This Investment will result in a benefit to 100% of all stakeholders statewide.

Sustainability

After this initial Investment, the increased capabilities will be sustained by state and local funding. This will be more than justified by the reduction in the duplicated and costly outdated infrastructure, and by creating a critical component for protecting, and

reducing loss of life and property of Alabama citizens. Once this Investment is implemented, its value becomes obvious, and will be given priority in future budgets.

There are a number of reasons state and local agencies will contribute to the continuation of this Investment. This Investment will replace and/or upgrade existing infrastructure and will greatly reduce current cost for agencies to maintain separate systems. This will generate a cash flow to support the maintenance of this Investment. Ultimately, this system will be maintained by state and local emergency response agencies in this way.

In addition, the Project Manager will be retained as a full time permanent position with the Alabama Department of Homeland Security. The technical staff of other state agencies in order to spread the expertise and reduce dependence upon a single individual will further support this position. This position will be responsible for overall system maintenance, technical assistance to local jurisdictions and ongoing training.

Investment Name: Wide Area Interoperability System (WAIS)

Project Narrative

This Investment will build on the current Wide Area Interoperability System (WAIS) to enable all agencies in all counties to fully participate in the WAIS. This will enable communication through network connections, including Voice over Internet Protocol (VoIP). Currently, gateways are installed in each of Alabama's 67 counties and in each regional communications vehicle and in several other mobile command vehicles throughout the state. However, most gateways are not currently networked. This Investment will greatly facilitate communications in times of emergencies, since a broadband Internet connection is all that will be needed for communications, whether obtained by satellite, cell tower or hard lines. Moreover, this Investment will enhance the statewide communications platform by providing backup and redundancy. This system will create a very effective method of connectivity between disparate frequency bands, providing an effective environment for interoperability. The particular units to be obtained were chosen for consistency with existing gateway hardware. This Investment will be evaluated by the number of gateways that are networked and functioning throughout the state (the proportion of the state covered).

Historical Funding

Funding from the HSGP has been used to support the state's interoperable communications program since 2004 to procure equipment and training for the current WAIS capabilities. The amount requested was \$2.3 million, and the amount actually funded was \$459,000, thus not allowing for the undertaking of Phase IV – the comprehensive extension of the WAIS.

Description of Need

The Alabama WAIS currently consists of eight (8) ACU-1000s (gateways) connected over an IP network. Currently, this system is being expanded to the nine largest metropolitan areas, and training and exercises have been conducted. Under another HSGP Initiative, a project has been initiated to provide similar communications gateway connections between the states of Alabama, Mississippi, and Louisiana.

This Investment will expand the WAIS to include the remaining gateways located throughout the state. This will include the remaining 58 counties and 6 state agencies that currently have gateways, effectively providing full statewide IP connectivity between agencies that have direct access to the statewide platform and those that operate on disparate systems. This is the next logical planned step for the next phase of the WAIS, which will network all gateways funded through the HSGP that have not yet been networked. This will involve installing a network card, wide area software, and establishing the necessary network connection for each gateway. This Investment supports the PSIC objectives of technological solutions, cost-effective measures, and improving interoperable communications among all involved agencies.

Statewide Communications Interoperability Plan Objectives

A major objective in the state plan is to create significant improvements in statewide interoperability by the extension of the WAIS (Sec. 4.0.3). This Investment will furnish all responding agencies (e.g., Forestry, Conservation, Public Safety, Public Health, and EMA) with a networked gateway connection to facilitate interoperable communications among disparate systems and will provide at least one JPS ACU-1000 gateway in each county. Training for this equipment will include all personnel utilizing the WAIS. This will enable responders to cross-connect assets at the local level (local interoperability) as well as cross-connecting assets from the Regional Communication Vehicles (RCV). This will also allow communication centers to communicate with each other. Each talk-path, or Network Extension Module (NXM), is a potential link into the WAIS system, commanded by a WAIS Dispatch Position Operator using the WAIS Controller Software. NXU network hubs will be added to make the most efficient use of network resources. Training and exercises will be conducted to ensure the WAIS is utilized in an optimal manner. This solution is the most cost-effective in that it will be totally compatible with the current equipment base.

Technology Priorities

This Investment utilizes a number of advanced technological solutions. The Alabama WAIS connects over an Internet Protocol (IP) network. Each gateway can have up to twelve (12) local assets, which can consist of radios, phones, cell phones or Network Extension Modules (NXM). The NXMs are the backbone of the Voice over Internet Protocol (VoIP) connection between the ACU-1000s. Each NXM is a potential link into the WAIS system utilizing the WAIS Controller Software. Network hubs can be added to create additional links that optimize the use of network resources. This mode of communication is a very effective method of connectivity between disparate frequency bands, and it creates an effective environment for interoperability. This Investment utilizes forward-thinking technologies and solutions to achieve interoperability. It utilizes voice and radio internet protocol, broadband voice, data, network interconnect technologies, and satellite communication systems.

All Hazards Mitigation Priorities

The state's SCIP demonstrates the awareness of the high-risk areas within the state. Although quite different in the vulnerability faced, these pockets of exposure are distributed across the state. For example, the gulf port city of Mobile faces hurricane and major seaport vulnerabilities as well as those of any major metro area of this size. While hurricanes are not prevalent further north, other weather events, major military bases, sports events and munitions dumps pose their own vulnerabilities. This supports the argument for the statewide Investment that will be built out from the current metropolitan areas to build on strength while addressing urban vulnerabilities. This Investment provides the communication so critical to mobilization by providing: (1) seamless communications across participating county boundaries; (2) sustained local and regional communications capabilities; and (3) uninterrupted flow of critical

communications among responding multi-disciplinary and multi-jurisdictional agencies during a homeland security all-hazards incident or event. This enables decision makers to identify the most critical emergency needs, and to provide resources to affected areas in the most timely and effective manner.

Milestones

Milestone #1

Perform WAIS Assessment. This will determine the current network connectivity for the remaining counties in order to ensure that sufficient network capabilities exist. This will result in the generation of a requirements document, and where required the updating of the systems design document. The Project Manager will assist jurisdictions in meeting the necessary requirements.

Start Date: 1 Apr 2008 **End Date:** 1 Aug 2008

Milestone #2

Acquire Additional WAIS Equipment. Based on the requirements document, this milestone will acquire and install equipment, and perform individual operational training for any enhancements to existing network and communications infrastructure. It will also build out any new infrastructure that has been identified as required.

Start Date: 1 Jun 2008 **End Date:** 1 Jun 2009

Milestone #3

Conduct Ongoing Training. This will be above and beyond the immediate training that comes with the equipment, usually from the manufacturer at installation time for operational and maintenance purposes. Training will be more formalized and will involve group participation.

Start Date: 1 Jan 2009 **End Date:** 1 Aug 2009

Milestone #4

Conduct Exercises and Tests. These will be performed when a reasonable degree of maturity has been attained and the deployment has progressed to a point that a sufficient number of jurisdictions may participate. In addition, a periodic testing plan will be established to ensure network stability and availability.

Start Date: 1 Sep 2009 **End Date:** 1 Apr 2010

Investment Challenges

Challenge #1

Unavailability of Network Connectivity

Probability: Medium **Impact:** High

Mitigation Strategy:

Identify existing network availability through a request for information to all providers in the affected jurisdictions. Insure that existing connections are of sufficient bandwidth, and in locations with insufficient or no connection, use the most cost-effective alternative available.

Challenge #2

Insufficiently Trained Personnel

Probability: Medium **Impact:** Medium

Mitigation Strategy:

To mitigate this challenge we will: 1) assure that all involved personnel are trained on basic operations of existing gateways; 2) provide enhanced training for key technical personnel in each region to offer technical assistance and training to other personnel; and (3) provide day-to-day usage training to ensure that operator qualifications are maintained.

Outcomes

The comprehensive expansion of the WAIS enables responders to better communicate with other responders and local/state emergency centers. This will have the following impact on operations: (1) increase ability to identify, locate and apprehend terrorists to prevent an immediate subsequent strike; (2) increase ability to assess the total scope of the (all hazards) problem; (3) increased knowledge of the locations of the most critical needs for remedial/mitigation assets; and (4) increased knowledge of the location of current mutual aid assets. All of these benefits can be obtained by this Investment, and success will be measured by the effective operation of the network itself.

The impact of this investment can be documented through day-to-day use and exercise results in terms of both communications and onsite incident management. On-site incident management becomes impossible without effective communications. The determination of the effectiveness of the communications equipment and training will be measured during the exercises. Scenarios will be created that will stress test the communication capabilities to assure that they meet the requirements established.

Logs will be maintained of both the successful and unsuccessful communication attempts to enable improvements to be made at the most critical points.

Progress in implementing this Investment will be assessed by the following performance metrics: 1) during non-emergencies, sustained local and intrastate regional communications flow at least 95% of the time, and 2) during emergencies, sustained local and regional communication flow should be between 85 to 90% of the time. The outcomes of the project itself will be assessed by the following metrics: 1) two means of communications are identified and tested between local agencies and the State Emergency Operations Center, which will include both the statewide communications platform and WAIS capabilities; and 2) the total number of gateways connected should provide at least 95% coverage.

The following cost-effective measures will assure the success of this Investment:

- (1) Utilize existing network connections; therefore, incurring no additional connectivity costs.
- (2) Using the current equipment specifications to ensure consistency with the existing WAIS.
- (3) By employing advanced technologies, the benefits of the Investment are extended to the greatest number of users at a lower cost.
- (4) Regular agency exercises will be performed to validate and improve the effectiveness of the specific equipment and training that is implemented.
- (5) The equipment and training will be integrated into the current incident command structure and standardized operational procedures.

Sustainability

Sustainability costs for this Investment are minimal. Participants will be encouraged to utilize existing infrastructure when available. Any sustainment costs associated with this Investment will easily fit within the state and local agency's existing budget. As a result of the emerging technological trend that utilizes Internet and network connections for system operations, primary sustainment costs for this Investment will be a normal operating cost. This Investment will not require a unique or separate network connection.

In addition, the Project Manager will be retained as a full time permanent position with the Alabama Department of Homeland Security. His position will be further supported by the technical staff of other state agencies in order to spread the expertise and reduce dependence upon a single individual. This position will be responsible for overall system maintenance, technical assistance to local jurisdictions and ongoing training.

Investment Name: Alabama Strategic Technology Reserve (STR)

Project Narrative

This Investment builds on the current Strategic Technology Reserve (STR) to enable greater interoperable capability. While the state has started building its STR capabilities, additional equipment and training is essential to respond to major disasters and catastrophic events. A radio cache will be purchased for each region and portable tower/repeater capabilities will be added. This will enhance communications between all agencies in times of emergencies by enabling these resources to be pre-positioned, and then moved into the area of the emergency. These assets will be utilized to re-establish or enhance communications at the local or state level when they become overwhelmed, damaged or destroyed. The STR will assist responders as well as all involved local/state emergency operations centers. It provides for all agencies to communicate locally, both in the area affected and those providing mutual aid support to the affected area. This Investment will be evaluated by metrics on the time to restore communications obtained during an exercise involving a simulated emergency that significantly disrupts communications.

Historical Funding

Funding from the HSGP has been used to support the state's STR projects since 2004.

This has resulted in the purchase and strategic placement of eight regional communications vehicles and one Mobile 911 vehicle. While this was a good start, it was not sufficient to provide the level of STR that is essential to handling the types of emergencies that could easily be anticipated in the state. The amount requested was \$4,000,000, and the amount actually funded was \$2,633,590. This IJ will be Phase III of an ongoing statewide STR project.

Description of Need

This Investment addresses PSIC objectives of advanced technological solutions and cost-effective measures by pre-positioning interoperable communications equipment in advance for immediate deployment to an emergency or major disaster area. For the past three years, Alabama has invested in a strategic technology reserve consisting of the strategic placement of eight Regional Communications Vehicles and one Mobile 911 vehicle. Equipment utilized in these vehicles includes Land Mobile Radio Systems, gateways, cellular telephones and satellite-enabled equipment. The Regional Communications Vehicles are distributed within each homeland security region and at the Alabama Emergency Management Agency. These assets are easily pre-positioned to any location within the state in about three hours (average time) in order to quickly reestablish communications infrastructure following a disaster or catastrophic event. These assets enhance existing local communications infrastructure in the event that local resources become overwhelmed. This Investment will be Phase III of an ongoing

statewide STR project. PSIC grant funding will be used to enhance current assets and resources by pre-positioning additional equipment in each region.

Statewide Communications Interoperability Plan Objectives

A major objective in the state plan is to create a strategic technology reserve (page 77 of SCIP) to assure that the state can respond to any major emergency or catastrophic event that would knock out local communications capabilities. To accomplish this, this Investment will obtain the necessary equipment, which will be pre-positioned in advance for immediate deployment in an emergency or major disaster. Since previous Investments have secured mobile communications capabilities for rapid deployment, this Investment will involve the acquisition of additional equipment and training/exercises. This equipment will include radio caches and mobile/portable radio repeaters and towers for each region. All of the radios will be programmed with mutual aid and interoperability channels, and personnel will be trained in their use. This interoperable communications equipment will be readily deployable so that critical public safety communications can be re-established when existing infrastructure becomes disabled in an emergency or disaster situation. The SEIC and the working committee will determine placement of these caches.

Technology Priorities

To assure that the radio caches that will be purchased and deployed under this Investment will be of the latest technology, an analysis will be performed by a technical committee that reports to the SEIC. The exact equipment cannot be specified at this point because technology is changing almost daily. The analysis will be conducted by reviewing the latest technologies. Equipment will be purchased that is consistent with the objective to improve radio spectrum efficiency to enable the systems to have enough capacity to handle the dense traffic that occurs during major emergencies. This will take advantage of the survey of current interoperability channels in use (included in the SCIP). Equipment will be specified with requirements “or their equivalent” in order to give flexibility in meeting the requirements in the most cost-effective way. All equipment purchases will be made centrally to assure consistency and compatibility. Optimization will be sought over the intermediate term (3 to 7 years out), anticipating the new technology that will be most cost-effective at that time. For example, Project 25 (P25) standards will be required for all new equipment.

All Hazards Mitigation Priorities

The state’s SCIP demonstrates the awareness of the high-risk areas within the state. Although quite different in the vulnerability faced, these pockets of exposure are distributed across the state. For example, the gulf port city of Mobile faces hurricane and major seaport vulnerabilities as well as those faced by any major metro area of this size. While hurricanes are not prevalent further north, other weather events, major military bases, sports events and munitions dumps pose their own vulnerabilities. The STR will address this by pre-positioning resources near the most critical areas,

assuring that the equipment will not be destroyed by the expected vulnerability itself. Once an event occurs, assets will be re-positioned according to contingency plans what will be tested by exercises. The STR accounts for continuing technological evolution of technologies and devices, with its risk of obsolescence, the use of pre-negotiated contracts and other arrangements for rapid deployment of equipment, supplies, and systems and related communications services will be considered. This consideration will take into account any barriers to immediate deployment, including time and distance, in the event of an emergency.

Milestones

Milestone #1

Perform STR Component of IC Assessment. An analysis and identification of needed critical communications systems and capabilities will develop STR mitigation strategies that will ensure key personnel are still able to talk to each other during an emergency or major disaster. This will determine the needed equipment and training requirements, which will be validated by the pre-exercise assessment findings.

Start Date: 1 Nov 2007 **End Date:** 1 Mar 2008

Milestone #2

Determine optimal technology. The documented vulnerabilities will provide the basis for obtaining information from industry. A technical committee of SEIC will be responsible for making the equipment selection, which may vary according to the particular (all hazards) vulnerabilities in the different regions. It is essential that the technology be specified before any equipment is specified, since this will establish the essential ground rules for interoperability.

Start Date: 1 Jan 2008 **End Date:** 1 Mar 2008

Specify equipment. Based on the statewide assessment and optimal technology, this will define the minimum specification for the equipment to be obtained. It will take into consideration resource constraints and priorities established by the project governance.

Start Date: 1 Apr 2008 **End Date:** 1 Aug 2008

Milestone #4

Acquire Additional STR Equipment. Based on the equipment specification, this activity will acquire and install equipment, and perform individual operational training for any new equipment in which personnel do not have experience.

Start Date: 1 Aug 2008 **End Date:** 1 Apr 2009

Milestone #5

Conduct Ongoing Training and Exercises. This will be above and beyond the immediate training that comes with the equipment, usually from the manufacturer at installation time for operational and maintenance purposes. It will be more formalized and will involve group participation, and will exercise the equipment and surface any vulnerability.

Start Date: 1 May 2009 **End Date:** 1 Jan 2010

Investment Challenges

Challenge #1

Obtaining the Most Recent Technology Available to the State

Probability: Medium **Impact:** Medium

Mitigation Strategy:

The goal is to assure that the STR consists of the most cost-effective interoperable solution possible. This challenge will be mitigated by conducting a Request for Information (RFI) involving all potential providers so that the full range of alternatives can be considered.

Challenge 2

Diverse terrain

Probability: High **Impact:** Medium

Mitigation Strategy:

Alabama has coverage issues that require solutions that are more complex. This will be addressed by including the use of Google Earth Enterprise (Virtual-Alabama Alabama) to determine the best points for locating STR assets to provide the maximum coverage in a given target area where supplemental emergency coverage is needed.

Outcomes

This Investment will impact the risk of communications becoming disabled within an area by a major catastrophic event. This will impact the outcome of a catastrophic event in all areas of the state by: (1) increasing the ability to identify, locate and apprehend terrorists to prevent an immediate subsequent strike; (2) enabling assessment of the total scope of the (all hazards) problem; (3) providing knowledge of the locations of the most critical needs for remedial/mitigation assets; and (4)

identifying the location of current mutual aid assets. All of these benefits will be provided by this Investment, and success will be measured by the effective operation of the STR itself during exercises or disasters.

The impact of this Investment will be measured in two aspects: Communications and Onsite Incident Management. On-site incident management becomes impossible without effective communications. The determination of the effectiveness of the communications equipment and training will be measured during the exercises. Scenarios will be created that will disable normal communications, simulating the need for activating the STR. Stress tests of the restored STR capability will be performed to assure that it meets the goals established. Logs will be maintained of both the successful and unsuccessful communication attempts.

Progress in implementing this Investment will be assessed by performance metrics that will be accumulated during the exercises. Normal communications will be simulated to be disabled and the STR will be used to restore communications. The following benchmarks will be measured against: 1) restoration of communications capability with the central state command center within one hour after equipment deployment is initiated (assuming deployment will begin at the point where there is clearly no further risk to the equipment itself); 2) sustained local and regional communication flow restored to its normal 75 to 80% level within two hours after deployment; and 3) full restoration to 85 to 90% level after no longer than three hours after deployment. The outcomes of the project itself will be assessed by the following metrics: 1) At least 90% of the state's communication specialists trained on the STR plan, and 2) equipment requirements defined, installed and programmed.

Cost-Effective Measures

The following cost-effective measures will assure the success of this Investment:

(1) To reduce cost, the request for proposal will use the example equipment "or its equivalent" in order to foster as much competition in the process as possible. The following items will assure effectiveness.

(2) An assessment of the most probable (all hazards) catastrophic events will be conducted to determine the most advantageous pre-positioning of the equipment and to develop plans with regard to bringing all STR assets to bear on a given problem.

(3) A coverage restoration assessment will be performed using the most current tools available; e.g., CASM capabilities will be extended by the use of Google Earth Enterprise (Virtual-Alabama Alabama) to find optimal methods toward covering the emergency area.

(4) To the extent possible the P25 standard will be utilized.

(5) All standards employed will be flexible and open architecture.

(6) The overall approach will be based on a statewide strategy that has been developed and will continue to change through a broad base of stakeholder support.

(7) Regular agency exercises will be performed to validate and improve the effectiveness of the specific equipment and training that is implemented.

(8) The equipment and training will be integrated into the current incident command structure and standardized operational procedures.

Sustainability

After this initial Investment, the increased capabilities will be sustained by state and local funding. Once obtained, the cost to maintain this equipment should be quite manageable, and all agencies have mechanisms in place to keep their electronic equipment in working order. A replacement schedule will be put into effect where those items that are no longer repairable will be replaced. Agencies identified to receive this equipment will be required to provide financial support for sustainment of equipment. Agencies with existing STR equipment have provided sustainment funding. Recipients have also funded maintenance and repair expenses. Equipment purchased through this Investment will also agree to these requirements. In addition, the Project Manager will be retained as a full time permanent position with the Alabama Department of Homeland Security. His position will be further supported by the technical staff of other state agencies in order to spread the expertise and reduce dependence upon a single individual. This position will be responsible for overall system maintenance, technical assistance to local jurisdictions and ongoing training.

Investment Name: Enhancement of State, Regional, and Local Governance Structures

Project Narrative

This Investment will enhance governance structures at the regional level providing leadership and promoting consistent communication policies, processes, and procedures to advance optimal interoperability throughout the state. As identified in the SAFECOM guidebook, a governing body for oversight is an essential part of the communications interoperability process. Limited and fragmented planning and a lack of coordination and cooperation among governmental agencies hinder first responders' capacity to communicate. The State of Alabama has created a partnership among key executives in state and local government, tribal jurisdictions, and non-governmental public safety organizations fostering collaborative planning and encouraging the development of open architecture and standards. This Investment ensures the Statewide Communications Interoperability Plan is implemented and extends the State's strategies and objectives to the local level. This Investment will reduce the possibility for internal jurisdictional conflicts during emergencies while improving communication, coordination, and cooperation in day-to-day operations. Local and regional stakeholders will include responders from the all emergency management disciplines. To evaluate this Investment performance measures will be employed utilizing the State's interoperability continuum. The interoperability continuum is designed to address critical elements for success with respect to enhancing governance structures.

Historical Funding and Request Name

Funding from the HSGP has been used to create the Statewide Interoperability Executive Committee (SEIC) and a governance structure in one of seven regions. This Investment will create governance structures in the other six regions. The amount requested was \$150,000.00, and the amount actually funded was \$75,000.00. Funding for this Investment will not be used to supplant previously planned project costs.

Description of Need

In May 2007, the State established the SEIC, which consists of seventeen representatives from state public safety associations and other government agencies. SEIC serves as a steering group focused on providing leadership to develop policies and guidelines, conducting research concerning technology advances, and promoting collaborative partnerships to maximize resource sharing. Under SEIC oversight, several initiatives have been accomplished and others are presently underway. For example, local jurisdictions have completed preliminary Tactical Interoperable Communications Plans (TICP), which include Standard Operating Guidelines (SOG). These plans identify specific problems, needs, and barriers to communications among the area's agencies and establish roles and responsibilities among critical partners. This Investment will ensure regional governance committees have adequate resources

to extend the State's interoperability goals and objectives to the local level. The creation of SEIC addresses the PSIC objective of establishing governing bodies to ensure that focus and direction of interoperability efforts will be maintained.

Statewide Communications Interoperability Plan Objectives

The major objective is to enhance regional and local governance structures to ensure the successful implementation of the PSIC initiatives and the State's Communication Interoperability Plan. Regional governance committees have the objectives to promote accountability, improve communication between governments, serve as an educational resource regarding technological innovations, develop recommendations for policies and guidelines, and identify technology and standards. The committee also has the objective to coordinate intergovernmental resources to facilitate wireless communications interoperability at the local level. These efforts will enable public safety officials to effectively work together on a common agenda and ensure quality service in times of emergency to their diverse constituencies. Enhanced governance structures will foster strong and decisive leadership. Regional governance committees have the objectives to provide the necessary framework for an innovative, inclusive, scalable, sustainable, and well-managed interoperability plan that reflects national standards, as well as addressing the unique urban and rural requirements.

Technology Priorities

The regional governance committees will leverage expertise to provide meaningful forums for information exchange and research concerning technology advances for public safety agencies. These committees will encourage agencies to use scalable, redundant communication systems that are secure and that can be augmented with video, satellite imagery, structural and occupancy plans, GPS, and radio-to-telephone bridging. Additionally, regional governance committees will address issues of fragmented infrastructure and spectrum inefficiency. For example, as more gateways are integrated into the state's WAIS interoperable system, governance committees will monitor the implementation and promote designated mutual aid frequencies. In order to ensure the cost-effective delivery of services, the governance committees will promote coordination and partnership where possible. For instance, establishing a secure web portal for state and local agencies to exchange information will provide a medium in sharing of resources and lessons learned during the implementation process.

All Hazards Mitigation Priorities

Regional governance structures are critical to comprehensively evaluating significant risk. By bringing together representatives from critical emergency response disciplines, governance committees can promote effective cross threading between agencies regarding risk management issues. Among its many threats, the State assesses the risk and impact of particular forms of terrorism, such as radiological attacks and cyber-terrorism. Governance committees will play an important role in developing a

communication framework within urban and metropolitan areas that are subject to a high risk of terrorism. Once these models have been successfully deployed, they will be introduced within rural areas. Additionally, governance committees will be used to develop uniform policies and procedures for clear and concise guidance with respect to the deployment of emergency assets.

Milestones

Milestone #1

Conduct regional stakeholder workshops to outline the benefits of a formal governance structure. This will not only serve as a basis for information and outreach, but will also provide a forum for planning and coordination.

Start Date: 1 Apr 2008 **End Date:** 1 Jan 2009

Milestone #2

Develop a forum for discussion of a statewide communications system. Have representatives from all disciplines involved and their jurisdictions set to receive information on committee implementation.

Start Date: 1 Jun 2008 **End Date:** 1 Jan 2009

Milestone #3

Conduct training courses on establishment of formal regional governance structure. Ensure participation by all disciplines and jurisdictions.

Start Date: 1 Oct 2008 **End Date:** 1 Jan 2010

Milestone #4

Establish a regional governance committee in the six remaining regions of the state. Coordinate with all local governance structures to become seamless across agencies and jurisdictions and establish sub-committees as required.

Start Date: 1 May 2008 **End Date:** 1 Jan 2010

Milestone #5

Conduct exercises to ensure regional and local governance committees have received sufficient training and related guidance. The training and exercise criteria will be established by the SEIC. Deficiencies will be identified utilizing the AARs.

Start Date: 1 Sep 2008 **End Date:** 1 May 2010

Investment Challenges

Challenge #1

Cross discipline and jurisdictional issues

Probability: Medium **Impact:** High

Mitigation Strategy:

This issue is currently being addressed by including representatives from each discipline and jurisdiction in the homeland security grant funding process. This process will continue, as will the efforts to include key leadership in the committee implementation process.

Challenge #2

Agencies resist participation due to misconceptions about sharing communications.

Probability: High **Impact:** Medium

Mitigation Strategy:

Several ongoing educational and information workshops will be conducted that will clearly define goals and objectives.

Challenge #3

Additional job responsibilities limit availability of personnel.

Probability: Medium **Impact:** Medium

Mitigation Strategy:

To mitigate this challenge we will streamline the planning and training process by consolidating and coordinating with existing workshops and planned events.

Outcomes

Enhanced governance structures will have an immediate and robust effect on communication abilities throughout the state. In order to ensure responsive and efficient administration when disasters suddenly threaten lives and property on a wide scale, an adequate system must be in place to coordinate participation from all levels of government. Governing bodies for communications interoperability efforts are essential to ensure that focus and direction is maintained. In addition, these committees can be used to provide guidance and assistance when implementation efforts are slowed or

stalled. As identified in Alabama's TICP scorecard last year, some regions have developed a strong governance structure for the support of its communications interoperability; however, significant work is still required to achieve advanced implementation. This Investment will provide for planning, training, and exercise support to further enhance the governance structure at the state, regional and local levels. The State believes the successful implementation of the Statewide Communications Interoperability Plan will best demonstrate preparedness and success regarding this Investment. Although the governance structure will play a critical leadership and oversight role in all aspects of the State's plan, the following initiatives will be given top priority for implementation by the committees: adoption of national technical standards for communication and interoperability to be used as the basis for planning, management, training and funding; utilize common terminology across organizational structures; ensure all agencies utilize designated mutual aid frequencies; promote standardized training for all agencies at all levels for regional and local implementation. For example, there is a need to: outline minimum training standards for the local agencies; foster governmental support for communications and interoperability across political parties and administrations; ensure state and federal funding is defined, consistent, and aimed at communications equipment acquisition, maintenance, and operations; and advance clear and consistent statewide standard operating procedures for incident planning, communications, response, and review. Currently, there is no formal statewide training procedure to track, enforce, and ensure SOP adoption and maintenance.

Cost-Effective Measures

In order to ensure the Investment is successful throughout the PSIC period of performance, a series of measures will be adopted to ensure the cost-effective delivery of services. First, the State will ensure PSIC grant funds are adequately managed. More specifically, the SAA will ensure all expenditures are valid under the PSIC Grant Guidance. The State is committed to following the cost principles used to govern payments by the federal government. Only necessary and reasonable expenses for proper and efficient performance and administration will be incurred. All expenditures will be allocable under the provisions set forth in OMB Circular A-87 and will be consistent with policies, regulations, and procedures that apply uniformly to both federally assisted and other activities of the governmental unit. All expenditures shall be documented in a consistent format and adequately documented.

Second, the State will compare expenditures with actual progress made. The SAA will utilize the interoperability continuum as a performance measure for the implementation and grading of the State's progress in obtaining the goals outlined within the Communications Interoperability Plan. Alabama will be graded annually on where the state falls with respect to the five general areas of the continuum, including governance. Each county is required to exercise this plan annually, and these After Action Reports/Improvement Plans will be used in the grading process. Not only will each of the counties exercise individual plans, the state will hold a statewide exercise every two years based on its plan. The most cost-effective situation will exist when all

regional committees are working with the statewide interoperability committee. SEIC will serve in an oversight capacity to ensure the plan is updated periodically to incorporate new directives, legislative changes, and procedural changes based on lessons learned from exercises and actual events.

As a final measure, SEIC will ensure grant funds are properly allocated during emergency situations. Under these circumstances, the state Emergency Operations Plan will be followed, ensuring that communications commitments are properly requested and tasked prior to deployment. Following deployment, requests for reimbursement of allowable activities will be routed through appropriate channels. The state plan provides for the use of communications resources for the entire emergency response community.

Sustainability

The Alabama Department of Homeland Security, in conjunction with the SEIC, will be responsible for obtaining initial funding to support the State's Communications Interoperability Plan. After this initial Investment, sustainment costs will be minimal. With respect to the governance committees, the SEIC will seek additional needed funding from federal, state, local or private funds. State and locals jurisdictions will be informed through an SEIC Outreach Program on the importance of funding communications projects from their own resources and participating in funding of interoperability projects. Members of the SEIC will also assist with program promotion and education of elected officials and key personnel. Sustained funding in the long term will be the responsibility of all emergency response agencies.

Investment Name: Virtual-Alabama Communications Layer

Project Narrative

This Investment involves the enhancement of the State's geospatial visualization platform. Currently, the secure platform for designing, implementing and sustaining geospatial information systems supporting local, county and state governmental mapping initiatives is limited. As a result, authorities have limited tools to plan for emergency events, such as evacuations. ALDHS proposes expanding the use and functionality of its Virtual-Alabama (VA) program, which relies upon the Google Earth Enterprise application. By enhancing the interoperable communications layer in VA's geospatial information management capacity this will directly enhance emergency planning and response capability. The department will have greater capability to determine existing communications infrastructure and the ability to better analyze current resources to identify deficiencies. This Investment will allow for a more coordinated response from mutual aid resources throughout the state so they can determine communications capabilities. The Interoperability Continuum will be the performance measure for the implementation and grading of this IJ. The goal of this Investment will be at least 95% of the jurisdictions communications assets identified.

Historical Funding

Funding from an NGA grant and HSGP has been used to implement the Virtual-Alabama Alabama project. This Investment will fund an interoperable communications layer. Grant funding has not allowed for this phase of the project. The amount actually funded was \$45,000.00. Funding for this Investment will not be used to supplant previously planned project costs.

Description of Need

The VA user base is approximately 400 users from 75 departments that encompass multiple agencies and disciplines from across the state. VA, which utilizes the Google Earth Enterprise platform, can more readily assemble, display, evaluate and share data with state, county and municipal governments, including emergency responder teams and law enforcement. The platform represents a secure and user-friendly means to share geospatial data. ALDHS continues to work with all 67 counties to incorporate additional information, such as disaster management data, and train personnel in using the solution. County and municipal governments now supply approximately 80 percent of the state's geospatial data. The objective of this Investment is to give the VA team the capability to build an accurate model of the current state of communications and interoperable communications infrastructure and resources. Additionally, the technology has the capacity to overlay real-time data (gateways, regional communications vehicles, radio caches, etc.) with route mapping to better manage, control, and integrate communication resources. It will also enable command structure to readily assess communications needs.

Statewide Communications Interoperability Plan Objectives

A major objective in the state plan is to maintain, expand, and share communication technology among state, county, and municipal governments, and authorized non-governmental organizations to promote the efficient use of equipment and systems. VA is a user-friendly application offered on a secure internet portal and is more broad and intuitive than traditional GIS technologies. Moreover, as the system comes at no cost to users, the information-sharing platform is inexpensive and accessible. The communications layer will be used in conjunction with CASM to display a visual picture of interoperability and communications assets. The VA program will provide analytical tools, which will enable the user to investigate patterns in data and use scenario models to explore the consequences of possible emergency situations. The program will create a geographic database and user-friendly and interactive interface, which will provide critical information for decision support activities. In designing the overlays and other features, close coordination will be sought to assure that all stakeholders are properly served.

Technology Priorities

The Google Earth Enterprise platform is an advanced technology solution. The application's scalable architecture can publish terabytes of geo-data to thousands of users from single server clusters and the 3D view provides a complete picture of the area of interests by fusing imagery, elevation data, GIS data, and annotations. The application enables easy exploration of massive datasets and creates super-overlays viewable by any user and publishable to first responders via any web server. Moreover, it can incorporate data in dozens of raster and point/vector GIS file formats. This application will address issues of fragmented infrastructure and spectrum efficiency because it will help the state better manage communication assets. With the common platform provided by Google Earth Enterprise, the State will be able to significantly reduce duplication of effort across departments because users will have a common database from which to draw geospatial information. Since ALDHS offers the application free of charge to county and municipal governments, cost-effectiveness will be advanced as more users utilize the system.

All Hazards Mitigation Priorities

The state's SCIP demonstrates the awareness of the high-risk areas within the state. Although quite different in the vulnerability faced, these pockets of exposure are distributed across the state. While hurricanes are not prevalent further north, other weather events, major military bases, sports events, and munitions dumps pose their own vulnerabilities. This Investment will build out from the metropolitan areas in order to build on strength while addressing urban vulnerabilities. With this strategy in mind, the Investment will aim to enhance geospatial databases so that more comprehensive details are rendered of critical infrastructure, such as the images of a road networks, buildings, or airports, in metropolitan areas first. The technology will be a critical decision support tool for emergency planning driven by the State's risk assessment

process. VA will enable users to develop simulation models to deal with dynamic and uncertain situations in the wake of a natural disaster or terrorist attack. This technology will enable decision makers to identify the most critical resources available to affected areas in a more timely and effective manner.

Milestones

Milestone #1

Identify current communications assets and resources. This will require close coordination between the state and local jurisdictions. It is essential that these are determined before overlay enhancements are added to the system.

Start Date: 1 Jan 2008 **End Date:** 1 Jul 2008

Milestone #2

Input communications data in CASM.

Start Date: 1 Jul 2008 **End Date:** 1 Sep 2009

Analyze CASM data prior to inputting into VA.

Start Date: 1 Sep 2008 **End Date:** 1 Dec 2008

Milestone #4

Export data from CASM into VA.

Start Date: 1 Dec 2008 **End Date:** 1 Mar 2009

Milestone #5

Conduct Ongoing Training. This will be above and beyond the immediate training that comes with the software. Training will be more formalized and will involve group participation.

Start Date: 1 May 2009 **End Date:** 1 Dec 2009

Milestone #6

Conduct Exercises. These will be performed when a reasonable degree of local jurisdictions have been attained and has processed to a point that a sufficient number of jurisdictions may participate.

Start Date: 1 Jan 2010 **End Date:** 1 Jun 2010

Investment Challenges

Challenge #1

Obtaining the most recent data available to the state

Probability: Medium **Impact:** High

Mitigation Strategy:

The goal is to assure that all communications data is collected. This challenge will be mitigated by conducting surveys involving all potential jurisdictions so that the full picture of assets and resources are available.

Challenge #2

Technology Compatibility

Probability: Low **Impact:** Medium

Mitigation Strategy:

To mitigate this challenge we will insure that data collection software and CASM is compatible with Google Earth. If an incompatibility exists, we will work with software technicians to resolve conflicts.

Challenge #3

Obtaining network connectivity at reasonable cost

Probability: Medium **Impact:** High

Mitigation Strategy:

Explore all network connectivity options. Where connections are limited or do not exist assistance will be provided with alternate options.

Outcomes

Currently, the State has a limited state interoperable communications layer in relation to geospatial information management capacity. For example, it does not have the capability to leverage imagery through a centralized database or quickly identify communication assets. With the enhanced situational awareness provided by such communications data, ALDHS officials will not only be able to plan more effective disaster response scenarios, but emergency teams are better equipped to respond to situations because they have access to accurate data shared by all personnel. This

Investment will render the tools necessary for probing and analyzing geographic databases. With the capacity to retrieve detailed maps for display, officials will be able to more readily identify existing communications assets and resources. The highly interactive and user-friendly nature of the application will make it easy for emergency planners, law enforcement, and first responders to get the right information at the right time. However, this tool is valuable only if the database contains relevant and reliable information. Without adequate funding, the technology will not realize its full potential since critical information will not be ingested into the database.

The impact of this Investment will be measured in two aspects: Communications and Onsite Incident Management. On-site incident management becomes impossible without effective communications. The determination of the effectiveness of the communications equipment and training will be measured during exercises. Scenarios will be created that will stress test the ability to identify communication capabilities. Logs will be maintained of the successful and unsuccessful efforts to identify needed communication assets and available resources.

Progress in implementing this Investment will be assessed by the following performance metrics: 1) receive communications data coverage from at least 95% of all participating jurisdictions, and 2) VA user base is expanded by 50%. The outcomes of the project itself will be assessed by the following metrics: 1) 100% of jurisdictions data is available, and 2) this data is available to 75% of first responders in the state.

Cost-Effective Measures

The following cost-effective measures will assure the success of this Investment:

(1) The coverage assessment will be performed using the most current tools available; e.g., CASM capabilities will be extended by the use of Google Earth Enterprise (Virtual-Alabama Alabama) to find optimal methods toward providing coverage.

(2) All standards employed will be flexible and open architecture.

(3) The overall approach will be based on a statewide strategy that has been developed and will continue to evolve through a broad base of stakeholder support.

(4) Regular agency exercises will be performed to validate and improve the effectiveness of the specific equipment and training that is implemented.

(5) The equipment and training will be integrated into the current incident command structure and standardized operational procedures.

This Investment will allow incident commanders and first responders to have a real-time picture of the current communications status. The communications layer of Virtual-Alabama Alabama will include the location of available resources, current

communications needs, and currently deployed resources. Visualization of this information will enable command personnel to determine the optimal course of action for the deployment of communication equipment.

Sustainability

The Alabama Department of Homeland Security, in conjunction with the SEIC, will be responsible for obtaining initial funding to support the creation of the state's interoperable communications layer in VA. After this initial Investment, sustainment costs will be minimal. The primary cost of sustaining this Investment is the cost associated with maintaining the Google Earth software. Due to the many benefits of the Virtual-Alabama Alabama project, its continuation is a top priority and the Alabama Department of Homeland Security is committed to continue funding. Ongoing costs for this Investment mainly consist of personnel costs associated with the continued maintenance of the communications layer to ensure data is current and accurate. The increased capabilities this Investment provides guarantees ongoing funding by state and local agencies. This technology will create a linkage between other decision support tools, which analyze geospatial environments. The blending of these technologies to tackle spatial problems will increase development-funding opportunities. By creating a critical component for protecting and reducing loss of life and property of Alabama citizens, this Investment will be given priority in future budgets. The SEIC commits to provide funding from the state general fund and local jurisdictions for future activities.

5.5 National Incident Management System (NIMS) Compliance

The Federal DHS Executive Order from HSPD-5 and HSPD-8 state that all emergency responders will follow NIMS/ICS. This certification is documented and all affected state agencies have signed off on the training and implementation in their realm of responsibility.

Governor Bob Riley signed Executive Order 24 on February 10, 2005 which establishes the National Incident Management System (NIMS) as the state standard for all incident management and orders Alabama Homeland Security and Alabama Emergency Management Agency to implement NIMS, to institutional NIMS and to use Incident Command System (ICS) for all incidents.

Appendix I contain the Statewide NIMS Compliance Directive issued by the Director of Alabama Department of Homeland Security and the Director of Alabama Emergency Management Agency.

[This plan follows this directive in its entirety.](#)

In response to the order, Alabama Emergency Management Agency designated a single NIMS Point of Contact for the State. The State NIMS POC is responsible for documenting NIMS compliance activities and reports the metrics to FEMA Region IV, NIMS Program Coordinator. In turn, each count in the state has designated a NIMS POC to document NIMS compliance activities through a federal web-based system, NIMSCAST.

Interoperability Communications is a primary component of implementing, institutionalizing and using NIMS and ICS. Interoperability Communications is addressed in FY07 NIMSCAST through:

- Section 2.6 Communication Plan Components;
- Section 2.11 Types of Information that Public Information System (PIS) can Gather, Verify, Coordinate and Disseminate;
- Section 6.5 Acquisition Adoption of Interoperability Standards;
- Section 7.1 Implementation of Communications Standards during Multi-agency and/or Multi-jurisdictional Events;
- Section 7.2 Methods of Ensure Consistent and Accurate Information during Incident.

The role that Public Safety Interoperable Communications (PSIC) funded equipment will play in enabling or improving NIMS compliance will be to further the interoperability of all agencies that are awarded PSIC funding. This role is critical to the replacement of old technology that is in use throughout the state at all levels of government. Modern equipment will facilitate the interagency communications that NIMS procedures seek to standardize by enabling better use of the Incident Command System.

Table 5.1 Statewide NIMS Implementation Chart

Requirement		Requirement	
Adopt NIMS	100%	Complete ICS-100	73%
Promote NIMS	100%	Complete ICS-200	45%
Use ICS for all hazards	88%	Incorporate NIMS into exercises	86%
Establish NIMS baseline	71%	Use exercises to evaluate NIMS implementation	56%
Use DHS funds to coordinate preparedness & response activities	No data available	Participate in multi-discipline/jurisdictional exercises	No data available
Update plans, checklists and SOG's	86%	Incorporate corrective actions and lessons learned into plans and procedures	96%
Promote interagency and interstate mutual aid	100%	Inventory response assets	75%
Complete IS-700	72%	Achieve interoperability in accordance with National Standards & Guidance	94%
Complete IS-800	41%		

5.6 Review and Update Process

The State of Alabama uses the “preparedness organization” concept described in NIMS for preparedness/review and maintenance/update of the State Plan. These organizations typically include all agencies with a role in incident management and provide a forum for coordination of planning, training, equipping, and other preparedness requirements.

Plan Review and Update:

SEIC maintains the plan in coordination with the Governor of Alabama, AEMA, ALDHS, State, local and tribal governmental agencies, private volunteer agencies, NGOs, and other private entities involved in response activities. The Plan is updated periodically as required to incorporate new directives, legislative changes, and procedural changes based on lessons learned from exercises and actual events.

1. Types of changes. Changes include additions of new or supplementary material and deletions of material that is no longer applicable. No proposed change should contradict or override authorities or other plans now contained in statute or regulation.
2. Coordination and Approval. Any department or agency may propose and develop a change to the Plan. The department or agency proposing the change is responsible for coordinating the change among primary and support agencies of each effected agency and any associated agency program areas as required. The proposing agency must then:
 - Obtain the official written approval for the change from the proper senior officials of the effected agency; and
 - Provide the final change to the SEIC for tracking, review, and official issuance.
3. Notice of Change. After coordination has been performed, including receipt of the necessary signed approval supporting the final change language, SEIC will issue an official notice of change.
4. SEIC will deliver each notice of change to all participating agencies, the Office of the Governor of Alabama, ALDHS, AEMA and FEMA.
5. Reissuance of the Plan: SEIC is responsible for coordinating full reviews and updates of the Plan every three years, or more often if needed.

NIMS Integration Center. This Plan uses the NIMS. Under the NIMS, the NIMS Integration Center is responsible for facilitating the development and adoption of national level standards, guidelines, and protocols related to NIMS. SEIC researches the current doctrine issued by the NIMS Integration Center in upholding the Plan as proper.

6 Implementation

Statewide Strategic Communications Interoperability Plan Implementation Guidance

On final approval of this plan, the SEIC and State Interoperable Communications Coordinator (SICC) will actively work to impose the statewide plan. Successful implementation depends on several key reasons. Education, outreach, coordination and inclusion of all disciplines and jurisdictions are key. Establishment of priorities and identification of short and long-term goals will ensure needed outcomes are achieved. Measured performance will aid in deciding the successfulness of implementation. When needed objectives and outcomes are not being met, the SEIC will adjust priorities and goals. The SEIC will oversee the status of interoperability in the state and revise this plan as needed. Responders and response agencies will be told of changes to the Plan as they occur. This plan will be published and spread to all jurisdictions and disciplines. It will be made an integral part of the overall communications for information and mutual aid sharing. Examples of effective motivational distribution and use techniques are:

- Develop an Executive Summary and summarizing of plan into a brochure for wide distribution.
- Recognize those entities who have met the standards of this plan as a model for the rest of the state. Declare them “Interoperable Ready.”

Day-to-day coordination of the statewide plan will be the responsibility of the SICC. The SICC will work as a member of the Alabama Department of Homeland Security and be responsible to the Director. The Director of ALDHS is also the SAA for the State of Alabama and will be responsible for implementation of the PSIC Grant. Job tasks for the SICC will include planning and implementation of the plan and strategic initiatives. Funding for this position will be provided through PSIC, state and other federal funding sources. The SICC will also be responsible for working with regional governance committees to set up and strengthen regional communications governance. The SEIC will appoint a working group consisting of state and local representatives to help the SICC with technical issues.

Implementation of the plan and strategic initiatives will begin immediately. All goals, objectives and initiatives should be carried out within a 36-month period. Critical success factors and performance measures for strategic initiatives have been identified in Section 5.4. Assignment of specific responsibilities to help with implementation of the plan will be made by the SEIC and SICC when needed.

Short and Long-Term Goals

- These implementation goals outline specific outcomes that will eventually achieve the overarching vision, mission statement, goals and objectives of this

plan. These goals involve legislative, executive, management, technical, operational and support personnel throughout the state. These goals should be adjusted as needed to ensure maximum implementation of the plan. **The final goal for this plan will be compliance with the state standards and equipment identified and kept as shared resources.**

Short and long-term goals include:

- Develop a forum for discussion of a statewide communications system. Have representatives from all disciplines involved and their jurisdictions set to receive input on the system feasibility.
- Educate and encourage the use of all mutual aid communications resources statewide.
- Establish radio caches [Strategic Technology Reserve (STR) PSIC requirement] programmed with interoperable and mutual aid frequencies in appropriate areas of the state.
- Standardize and set up SOPs statewide. Encourage jurisdictions to adopt and use when set up. Reference Section 4.5.
- Improve interoperability communications training through all disciplines and jurisdictions, and stress that interoperable communications must be part of any exercise.
- Establish a secure state web portal to exchange information on frequencies and provide the medium for sharing of resources, lessons learned.
- Using CASM and other resources, send surveys to all agencies to find out their current communications infrastructure and resources, and use this for communications planning.
- Establish regional governance structure in every region. Enhance all local governance structures to become seamless across agencies and jurisdictions.
- Implement and expand the WAIS throughout the state.
- Increase the awareness and input of all agencies into Virtual-Alabama and expand its technology boundaries to the nth degree.
- Invoke Project 25 (P25) standards to all relevant statewide and local agencies procurement and use of communications equipment.
- Identify the status of interoperability repeater coverage throughout the state. This information can be obtained from each county.
- Educating policy makers and practitioners will be done through attendance of association meetings and regional governance meetings. This will go with setting up regional governance committees in every region.
- Establish a formal outreach program to ensure all emergency response, nongovernmental public safety and tribal agencies continue to be an integral part of the planning process and implementation of the strategic initiatives.

Critical Success Factors

Critical success factors (**milestones**) and performance measures for implementing strategic initiatives are identified in Section 5.4. The following are more overarching milestones needed for successful implementation of the plan:

- Formation of an Interoperable Communications Technical Committee.
- Submission and review of local/regional Interoperable Communications Projects.
- Development of technical specifications needed.
- Identification of the latest technology.
- Establish close relationships with decision makers and funding authority.
- Implementation of a statewide shared digital communications system.

The **Interoperability Continuum** will also be used as a performance measure for the implementation and grading of the State Plan. Alabama will be graded yearly on where the state falls in the five areas of the continuum. Each county is required to exercise this plan yearly, and these After Action Reports/Improvement Plans will be used in this grading process. Not only will each of the counties exercise individual plans, the state will hold a statewide exercise every two years based on its plan. All results from these exercises will be the basis of the performance measure of the state plan's implementation.

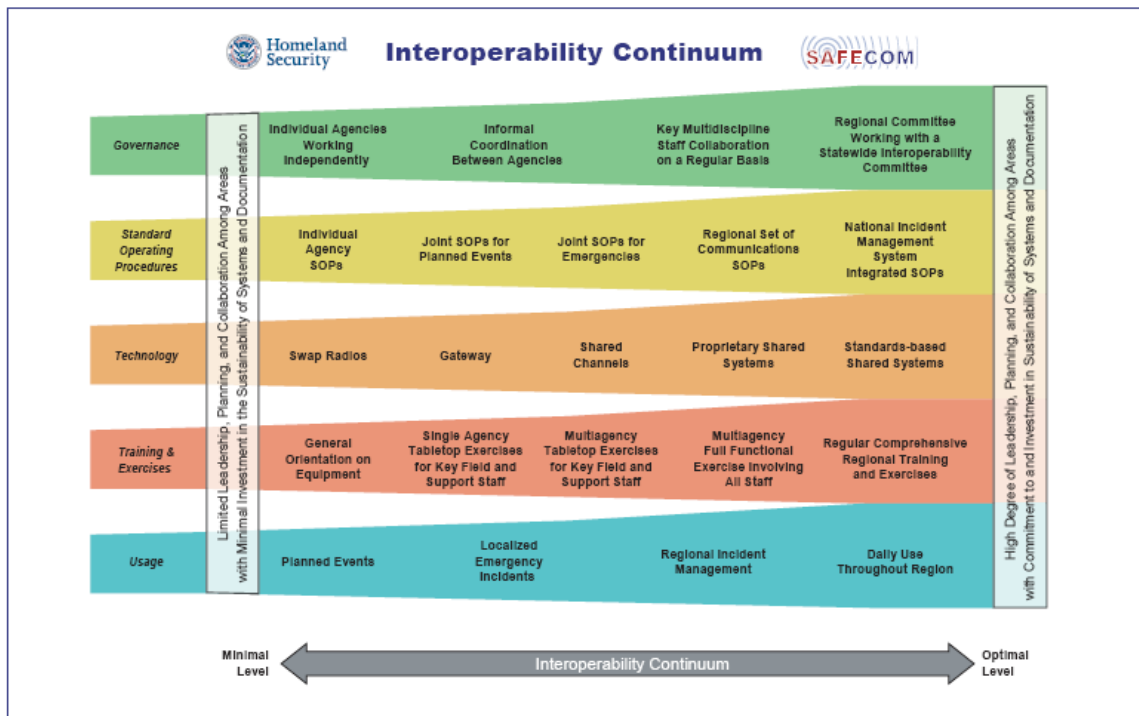


Fig. 6.1 Interoperability Continuum

7 Funding

The state must prioritize initiatives to be carried out with available funding. The SEIC will seek funding, including federal, state, local or private funds, for communications and interoperable communications projects. State and local jurisdictions will be told through an SEIC Outreach Program on the importance of funding communications projects from their own resources and joining in funding of interoperability projects. Members of the SEIC will help with program promotion and education of elected officials and key personnel.

Funding will be required for planning, strategic technology reserve, interoperable initiatives and M&A. PSIC initiatives will require matching funds. The SEIC commits to provide at least 20% in matching or in-kind funding from the state general fund and local jurisdictions.

The state plan provides for the use of communications resources for the entire emergency response community. During emergencies, the state Emergency Operations Plan will be followed, ensuring that communications commitments are properly requested and tasked before deployment. Following deployment, requests for reimbursement of allowable activities will be routed through proper channels.

The Alabama Department of Homeland Security with the SEIC will be responsible for getting first funding to support the state plan and its mission and goals. Sustainment funding in the long term will be the responsibility of all emergency response agencies. Long-term funding will include resources to properly train, exercise, and evaluate the various parts of the statewide system. Adequate funding in the near term has been identified and is available from several sources to support implementation activities and the strategic initiatives. A priority for funding will be to create a full time position of Interoperable Communications Coordinator for the state.

8 SCIP and PSIC Criteria Reference

No.		SCIP and PSIC Criteria	Section(s)/Page # Referenced in SCIP
1. Background and Preliminary Steps			
1.	1.1	Provide an overview and background information on the state and its regions. Include geographic and demographic information.	Section 2 Background Page 15+ Section 2.1 Geographic and Demographic Info Page 19+
2.	1.2	List all agencies and organizations that participated in developing the plan. (List them according to the categories recommended for a communications interoperability committee in the All-Inclusive Approach section above.)	Letter of Agreement Page 4 Section 2.2 Participating Agencies and POCs Page 42 Appendix A: Alabama's SEIC Page 166
3.	1.3	Identify the point of contact. DHS expects that each state will have a full time interoperability coordinator. The coordinator should not represent or be affiliated with any one particular agency and should not have to balance the coordinator duties with other responsibilities.	Section 2.3 Statewide Plan POC Page 43
4.	1.4	Describe the communications and interoperability environment of the current emergency response effort.	Section 4.0.1 Description of I/O Capabilities by ALDHS Regions Page 53+
5.	1.5	Include a problem definition and possible solutions that addresses the challenges identified in achieving interoperability within the SAFECOM Interoperability Continuum.	Section 5 Strategy Page 112 Section 5.3 Goals and Objectives Page 115 Section 6 Implementation Page 154
6.	1.6	Identify any Tactical Interoperability Communications Plans in the state.	Section 2.1.3 Metropolitan Areas/TIC Plans Page 41
7.	1.7	Set the scope and timeframe of the plan.	Section 2.4 Scope and Timeframe Page 44
2. Strategy			
8.	2.1	Describe the strategic vision, goals, and objectives for improving emergency response interagency wireless communications statewide, including how they connect with existing plans within the state.	Section 2.1 State Overview Page 19 Section 4 Current Statewide Assessment Page 49 Section 4.0.2 IO Projects

State of Alabama
2007 Strategic Communications Interoperability Plan

			<p>– Statewide Page 51+</p> <p>Section 4.2 Technology Page 74</p> <p>Section 5 Strategy Page 112</p> <p>Section 5.1 Interoperability Vision Page 112</p>
9.	2.2	Provide a strategic plan for coordination with neighboring states. If applicable, include a plan for coordination with neighboring countries.	<p>Section 2.1 State Overview Page 19</p> <p>Section 4.0.2 IO Projects – Statewide Page 51+</p> <p>Section 4.2 Technology Page 74</p> <p>Section 5 Strategy Page 112</p>
10.	2.3	Provide a strategic plan for addressing data interoperability in addition to voice interoperability.	<p>Section 2.1 State Overview Page 19</p> <p>Section 4.0.2 IO Projects – Statewide Page 51+</p> <p>Section 4.2 Technology Page 74</p> <p>Section 5 Strategy Page 112</p> <p>Section 5.4 Interoperability Investments Page 120, 128</p>
11.	2.4	Describe a strategy for addressing catastrophic loss of communication assets by developing redundancies in the communications interoperability plan.	<p>Section 2.1 State Overview Page 19</p> <p>Section 4.0.2 IO Projects – Statewide Page 51+</p> <p>Section 4.2 Technology Page 74</p> <p>Section 5 Strategy Page 112</p> <p>Section 5.4 Interoperability Investments Page</p>

State of Alabama
2007 Strategic Communications Interoperability Plan

			120,128, 133
12.	2.5	Describe how the plan is, or will become, compliant with the National Incident Management System (NIMS) and the National Response Plan.	Section 2.11 NIMS/Multi-Agency Coordination System Page 31 Section 5.5 National Incident Management System Compliance Page 151
13.	2.6	Describe a strategy for addressing communications interoperability with the safety and security elements of the major transit systems, intercity bus service providers, ports, and passenger rail operations within the state.	Section 2.1 State Overview Page 17+
14.	2.7	Describe the process for periodic review and revision of the state plan.	Section 5.6 Review and Update Process Page 153
3. Methodology			
15.	3.1	Describe the method by which multi-jurisdictional, multi-disciplinary input was provided from all regions of the state. For an example of a methodology that ensures input from all regions, see the Statewide Communication Interoperability Plan, or SCIP, methodology developed by SAFECOM.	Section 2.2 Participating Agencies and POCs Page 42 Section 3 Methodology Page 46-7
16.	3.2	Define the process for continuing to have local input and for building local support of the plan.	Section 3 Methodology Page 46-7 Section 5 Strategy Page 112+
17.	3.3	Define how the TICPs were incorporated into the statewide plan.	Section 2.1.3 Metropolitan Areas / TIC Plans Page 41+
18.	3.4	Describe the strategy for implementing all components of the statewide plan.	Section 2.4 Scope and Timeframe Page 44 Section 5 Strategy Page 112+ Section 5.4 Interoperability Investments Page 118+
4. Governance			
19.	4.1	Identify the executive or legislative authority for the governing body of the interoperability effort.	Section 4.1 Governance Structure Page 70 Appendix A SEIC Committee Members

State of Alabama
2007 Strategic Communications Interoperability Plan

			Page 166 Appendix H Establish SEIC Page 186
20.	4.2	Provide an overview of the governance structure that will oversee development and implementation of the plan. Illustrate how it is representative of all of the relevant emergency response disciplines and regions in the state.	Section 4.1 Governance Structure Page 70 Section 5.4 I/O Investments Page 139 Appendix C List of Individual County Governance Committees Page 169
21.	4.3	Provide the charter for the governing body, and use the charter to state the principles, roles, responsibilities, and processes.	Section 4.1 Governance Structure Page 70
22.	4.4	Identify the members of the governing body and any of its committees. (List them according to the categories recommended for a communications interoperability committee in the All-Inclusive Approach section above.)	Section 4.1 Governance Structure Page 70 Appendix A SEIC Info Page 166 Section D SEIC Working Committee Page 175
23.	4.5	Provide a meeting schedule for the governing body.	Section 4.1 Governance Structure Page 73
24.	4.6	Describe multi-jurisdictional, multi-disciplinary agreements needed for decision-making and for sharing resources.	Letter of Agreement w/Signatures Page 4 Section 5.4 IO Initiatives Page 118+ Appendix J MOU Agreement Page 189
5. Technology			
25.	5.1	Include a statewide capabilities assessment (or a plan for one) which includes, critical communications equipment and related interoperability issues. At a minimum, this should include types of radio systems, data and incident management systems, the manufacturer, and frequency assignments for each major emergency responder organization within the state. Ultimately, more information that is detailed will be required to complete the documentation of a migration strategy. States may use the	Section 4.0.1 Description of IO Capabilities by Regions Page 53+ Section 4.2 Technology Shared Page 74

State of Alabama
2007 Strategic Communications Interoperability Plan

		Communications Asset Survey and Mapping (CASM) tool to conduct this assessment.	
26.	5.2	Describe plans for continuing support of legacy systems, and developing interfaces among disparate systems, while migrating to newer technologies.	Section 5 Strategy page 112+ Section 5.4 Interop Investments Page 118+
27.	5.2.1	Describe the migration plan for moving from existing technologies to newly procured technologies.	Section 5 Strategy Page 112
28.	5.2.2	Describe the process that will be used to ensure that new purchases comply with the statewide plan, while generally allowing existing equipment to serve out its useful life.	Section 5 Strategy Page 112 Section 5.4 Interop Investments Page 120
6. Standard Operating Guidelines (SOGs)			
29.	6.1	Include an assessment of current local, regional, and state operating procedures, which support interoperability.	Section 4.0.1 Description of IO Capabilities by Regions Page 53 Section 4.3 Standard Operating Procedures Page 101
30.	6.2	Define the process by which the state, regions, and localities will develop, manage, maintain, upgrade, and communicate standard operating procedures (SOPs), as appropriate.	Section 4.3 Standard Operating Procedures Page 101
31.	6.3	Identify the agencies included in the development of the SOPs, and the agencies expected to comply with the SOPs.	Section 4.3 Standard Operating Procedures Page 101
32.	6.4	Demonstrate how the SOPs are NIMS-compliant in terms of the Incident Command System (ICS) and preparedness.	Section 4.3 Standard Operating Procedures Page 101 Section 2.1.1 NIMS/Multi-Agency Coordination System Page 31 Section 5.5 National Incident Management System Compliance Page 151
7. Training and Exercises			
33.	7.1	Define the process by which the state will develop, manage, maintain and upgrade, or coordinate as appropriate, a statewide training and exercises program.	Section 4.4 Exercise and Training Plan Page 104 Section 5.4 Interop

State of Alabama
2007 Strategic Communications Interoperability Plan

			Investments Page 118+
34.	7.2	Describe the process for offering and requiring training and exercises, as well as any certification that will be needed.	Section 4.4 Exercise and Training Plan Page 104
35.	7.3	Explain how the process ensures that training is cross disciplinary.	Section 4.4 Exercise and Training Plan Page 104
8. Usage			
36.	8.1	Describe the plan for ensuring regular usage of the relevant equipment and the SOPs needed to improve interoperability.	Section 4.5 Usage Page 110
9. Funding			
37.	9.1	Identify committed sources of funding, or the process for identifying and securing short- and long-term funding.	Section 7 Funding Page 157
38.	9.2	Include a plan for the development of a comprehensive funding strategy. The plan should include a process for identifying ongoing funding sources, anticipated costs, and resources needed for project management and leveraging active projects.	Section 5.4 Interop Investments Page 118+ Section 7 Funding Page 157
10. Implementation			
39.	10.1	Describe the prioritized action plan with short- and long-term goals for achieving the objectives.	Section 5.4 IO Investments Page 118+ Section 6 Implementation Page 154
40.	10.2	Describe the performance measures that will allow policy makers to track the progress and success of initiatives.	Section 5.4 IO Investments Page 118+
41.	10.3	Describe the plan for educating policy makers and practitioners on interoperability goals and initiatives.	Section 5.3 Goals and Objectives Page 115 Section 5.4 IO Investments Page 118+
42.	10.4	Describe the roles and opportunities for involvement of all agencies in the implementation of the statewide plan.	Section 5 Strategy Page 112+ Section 5.3 Goals and Objectives Page 115
43.	10.5	Establish a plan for identifying, developing, and overseeing operational requirements, SOPs, training, technical solutions, and short- and long-term funding sources.	Section 5.4 IO Investments Page 118+
44.	10.6	Identify a POC responsible for implementing the plan.	Section 2.3 Statewide Plan POC Page 42
45.	10.7	Describe critical success factors for implementation of the plan.	Section 5.4 IO Investments Page 118+ Section 6 Implementation Page 154

11. PSIC Requirements			
46.	PSIC #11.1	<p>Describe how public safety agencies will plan and coordinate, acquire, deploy and train on interoperable communications equipment, software and systems that:</p> <p><u>1) utilize reallocated public safety – the public safety spectrum in the 700 MHz frequency band;</u></p> <p>2) <i>enable interoperability with communication systems that can utilize reallocated public safety spectrum for radio communications; or</i></p> <p>3) <i>otherwise improve or advance the interoperability of public safety communications system that utilize other public safety spectrum bands.</i></p>	<p>Section 5.4 IO Investments Page 118+</p> <p>Section 4.0.2 IO Projects – Statewide Page 61+</p>
47.	PSIC #11.2	Describe how a strategic technology reserve (STR) will be established and implemented to pre-position or secure interoperable communications in advance for immediate deployment in an emergency or major disaster.	Section 5.4 IO Investments Page 133
48.	PSIC #11.3	Describe how local and tribal government entities' interoperable communications needs have been included in the planning process and how their needs are being addressed.	<p>Section 2 Background Page 15+</p> <p>Section 3 Methodology Page 46-7</p> <p>Section 4.1 Governance Page 70</p> <p>Section 5.4 IO Investments Page 118+</p>
49.	PSIC #11.4	Describe how authorized non-governmental organizations' interoperable communications needs have been included in the planning process and how their needs are being addressed (if applicable).	<p>Section 2 Background Page 15+</p> <p>Section 3 Methodology Page 46-7</p> <p>Section 4.1 Governance Page 70</p> <p>Section 5.4 IO Investments Page 118+</p>

9 Close

The Statewide Communications Interoperability Plan (SCIP) identifies the current status of interoperability in Alabama. It identifies our statewide strategy, assessment of current resources, and planned improvements. The plan is a collaborative effort of state, tribal, local and nongovernmental public safety response agencies. As identified in the plan, there are major initiatives that must be undertaken to fill the gaps throughout the state.

As the SEIC works to expand the communications governance structure in each Homeland Security Region, the SCIP will be integrated into the regional level and even into local jurisdictions. This plan will also provide a framework for disciplines and jurisdictions to work together in a concerted effort. This will eventually increase the efficiency and effectiveness of response throughout the state. The final goal of the plan is to increase protection, prevention and response in an effort to save lives and minimize damage to property.

Appendix A: SEIC Info

Statewide Agency	Name	Title
Alabama Dept of Homeland Security	Jim Walker	Director
Alabama Dept of Public Safety	Chris Murphy	Director
Alabama Emergency Management Agency	John James	Acting Director
Alabama Forestry Commission	Linda Casey	State Forester
Alabama Dept of Transportation	Joe McIness	Director
State Fire Marshal	Ed Paulk	State Fire Marshal
Alabama Alcohol Beverage Control Board	Emery Folmar	Director
Alabama Dept of Ag and Industries	Ron Sparks	Commissioner
Alabama Dept of Conservation and Natural Resources	Barnett Lawley	Commissioner
Alabama Dept of Public Health	Dr. Don Williamson	Director
Alabama National Guard	A.C. Blalock	Adjutant General
Alabama Dept of Corrections	Richard Allen	Commissioner
Alabama Sheriff's Association	Sheriff Russell Thomas	President
Alabama Police Chief's Association	Chief Louis G. Zook	President
Alabama Fire Chief's Association	Chief Butch Zaragoza	President
Alabama Association of Volunteer Fire Fighters	Johnny Alberson	President
Alabama Chapter of National Emergency Number Association	Harold Parker	President
Alabama Association of 9-1-1 Districts	Chris Heger	President
Alabama Association of Public-Safety Communications Officials	Holly Jinks	President
Alabama Association of Emergency Managers	Brett Howard	President
APCO	Eric Linsley	State Frequency Coordinator

Appendix B: AEM Agencies and Contact Information

Region	County	Contact	Title	Phone
1	Baldwin	Leigh Ann Ryals	Director	251-972-6807
	Choctaw	Jimmy Cowan	Director	205-459-2153
	Clarke	Roy Waite	Director	251-275-8775
	Conecuh	Heather Walton	Director	251-578-5911
	Escambia	David Adams	Director	251-867-0232
	Poarch Creek	April Sells	Director	251-368-9136
	Mobile	Walt Dickerson	Director	251-460-8000
	Monroe	Charles Murph	Director	251-575-8154
	Washington	Stewart Jackson	Director	251-847-2668
	Wilcox	Joyce Williams	Director	334-682-4843
2	Barbour	Webster Hugh Boyd	Director	334-687-1521
	Butler	Bob Luman	Director	334-382-9911
	Coffee	John C. Tallas	Director	334-894-5375
	Covington	Kristi Stamnes	Director	334-427-4911
	Crenshaw	Jessica Tomlin	Director	334-335-4538
	Dale	Robert Marsh	Director	334-774-2214
	Geneva	Margaret Mixon	Director	334-684-5677
	Henry	Paul Brown	Director	334-585-6702
	Houston	Clark Matthews	Director	334-794-9720
	Pike	Larry Davis	Director	334-566-8272
3	Bibb	Wayne Hayes	Director	205-926-3113
	Chilton	Bill Collum	Director	205-755-0900
	Dallas	Pam Cook	Director	334-874-2515
	Greene	J. D. Smith	Director	205-372-3302
	Hale	Russell Weeden	Director	334-624-7108
	Marengo	Kevin McKinney	Director	334-295-2227
	Perry	DeAndrae Kimbrough	Director	334-683-2236
	Pickens	Ray Elmore	Director	205-367-2009
	Shelby	Don Greene	Director	205-669-3999
	Sumter	Margaret A. Bishop	Director	205-652-6347
	Tuscaloosa	David Hartin	Director	205-349-0150
4	Autauga	Crystal Ousley	Director	334-361-3758
	Bullock	Fred Hollon	Director	334-738-3883
	Chambers	Donnie Smith	Director	334-576-0911
	Coosa	Lester Sellers	Director	256-377-2418
	Elmore	Eric Jones	Director	334-567-6451
	Lee	Faith Aguiard	Director	334-749-8161

State of Alabama
2007 Strategic Communications Interoperability Plan

	Lowndes	Walter S. Hill	Director	334-548-2569
	Macon	Judy Kinebrew	Director	334-724-2626
	Montgomery	Anita Patterson	Director	334-241-4181
	Russell	Chance D. Corbett	Director	334-291-5080
	Randolph	Donnie Knight	Director	256-357-0014
	Tallapoosa	Joe Paul Boone	Director	256-825-1078
5	Colbert	Mike Melton	Director	256-386-8558
	Fayette	Scott Porter	Director	205-932-4510
	Franklin	Roy Gober	Director	256-332-8890
	Lamar	Jonnie Bigham	Director	205-695-7105
	Lauderdale	George M. Grabryan, Jr.	Director	256-760-6363
	Marion	Matthew McCracken	Director	205-921-4555
	Walker	Johnny Burnette	Director	205-384-7233
	Winston	James Burnett	Director	205-489-2747
6	Blount	Max Armstrong	Director	205-625-4121
	Cherokee	Beverly Daniel	Director	256-927-3367
	Cullman	Phyllis Little	Director	256-739-5410
	DeKalb	Susan Battles	Director	256-845-8569
	Jackson	Victor Manning	Director	256-574-9344
	Lawrence	Hillard Frost	Director	256-974-7641
	Limestone	Spencer Black	Director	256-232-2631
	Madison	Rusty Russell	Director	256-427-5130
	Marshall	Anita McBurnett	Director	256-571-7329
	Morgan	Eddie Hicks	Director	256-351-4620
7	Calhoun	Dan Long	Director	256-435-0540
	Clay	Theresa Daugherty	Director	256-396-5886
	Cleburne	Steve Swafford	Director	256-463-7130
	Etowah	Deborah Gaither	Director	256-549-4575
	Jefferson	Allen W. Kniphfer	Coordinator	205-254-2039
	St. Clair	Ellen Haynes	Director	205-884-6800
	Talladega	Nelson Bates	Director	256-761-2125

Appendix C: County Governance Committees

Individual Alabama County Governance Committees		
Region 1	Committee Members	Agency
Baldwin Co	Lt. Steve Stewart	BCSO
	Lt. John Aldrich	BCSO
	Chief Michael Rowland	BMPD
	Chief Jesse Gregson	BMFD
	Chief David Carpenter	Daphne PD
	Chief Kenny Hanak	Daphne FD
	Chief Gary Peaden	Elberta PD
	Chief Steve Kilpatrick	Elberta FD
	Chief Mike Comalander	Fairhope PD
	Chief Kevin Hempfleng	Fairhope FD
	Chief David Wilson	Foley PD
	Chief Jamie Hinton	Foley FD
	Chief Arthur Bourne	Gulf Shores PD
	Chief Tim Blakemore	Gulf Shores FD
	Chief Cliff Yetter	Loxley PD
	Chief Tim Curry	Loxley FD
	Chief Billy Wilkins	Orange Beach PD
	Chief Forney Howard	Orange Beach FD
	Chief Brad Kendrick	Robertsdale PD
	Chief John Lucas	Robertsdale FD
	Chief David Edgar	Spanish Fort PD
	Chief Roger Few	Spanish Fort FD
	Chief Alvin Coggins	Silverhill PD
	Chief Gary Patrick	Silverhill FD
	Chief Dwain Riebeling	Summerdale PD
	Chief Ralph Clopton	Summerdale FD
Choctaw Co	Jimmy Cowan	CCHSEMA Director
	James Lovette, Sheriff	CCSO
	Chuck Breland, Chief	Butler PD
	Kenneth Thomas, Chief	Pennington PD
	Tom Abate, Chief	Gilbertown PD
	David Cunningham, Chief	Silas PD
	David Dunn, President	CVFA
	Jimmy Cowan, Director	CCEMS
	Patsy Allen, Director	CCE911
Conecuh Co	TBD	
Clarke Co	Roy Waite, Director	CCEMA
	Becky Neugent	CCE911 Coordinator
	Maurice Dyess	CCSO
Escambia Co	David Adams	ECEMA Director
	Janie Hamric	ECE911 Director
Mobile Co	TBD	
Monroe Co	TBD	
Washington Co	TBD	
Wilcox Co	TBD	
Region 2		
Barbour Co	TBD	

State of Alabama
2007 Strategic Communications Interoperability Plan

Butler Co	TBD	
Coffee Co	TBD	CCEMA (Chair)
		CCE911
		CCSO Sheriff
		CCFFA
		City of Elba
		City of Enterprise
		Town of Kinston
		Town of New Brockton
Covington Co	Kristi Stamnes	CCEMA
	Jeremie Shaffer	CCEMA
	Don Childre	City of Opp
	Greg White	CC Commission
	Sharon Dye	CC BOE
	Jim Marley	Antioch FD
	Mike Older	AL Forestry Comm
	Jeffery Biggs	Red Cross
	Billy & Jenni Ingram	Gantt Rescue & FD
Crenshaw Co	Jessica Tomlin	CCEMA Director
	Ben Pynes	CCE911 Director
Dale Co	Robert Marsh	DCEMA Director
	George Furqueron	DCE911 Director
	Lt. Jerry Sapp	Daleville PD
Geneva Co	Richard Underwood	GCE911 Administrator
	Margaret Mixon	GCEMA Director
	Robert Herring, Jr.	Fadette FD Chief
Henry Co	TBD	
Houston Co	Charles Finney	DHCEMA COML
	Clark Matthews	DHCEMA
	Steve Carlisle	DHCEMA
City of Dothan	Chief John Powell	E911 Dir/Police Chief
	Randy Hall, Chief	Electronics Technician
	Sheriff Andy Hughes	HCSO
	Bart Blackmon, Chief Dispatcher	HCSO
	Charles Reneau, President	HCVFF Assoc
	John Parrish, President	HC Rescue Assoc
	Pilchers Ambulance Co	
	CARE Ambulance Co	
Pike Co	TBD	
Region 3		
Bibb Co	Wayne Hayes	BCEMA Director
	Wanda Jones	BCE911 Director
	Chief Kenneth Weems	BCSO Chief Deputy
Chilton Co	TBD	
Dallas Co	Dick Bean	DCE911 Administrator
	Pam Cook	DCEMA Director
	Stephen Davidson	DCSO / EOC COML
	Jebb Harrison, President	DCVFF Assoc
Greene Co	J. D. Smith	GCEMA
	Iris Sermon	GCE911
	Sheriff Luther Davis	Eutaw PD
	Hudges Smith	AL Forestry Comm
	Bennie Abrams	GCEMS

State of Alabama
2007 Strategic Communications Interoperability Plan

	William Johnson, President	GCVFF Assoc
Hale Co	TBD	
Marengo Co	Kevin McKinney	MCEMA
	Tommie Reese	MCSO
City of Demopolis	Jeff Manual	DPD
	Mitchell Snipes	Tombigbee EMS
City of Linden	Scott McClure	LPD
Perry Co	Francis Ford	PCE911 Director
	DeAndrae Kimbrough	PCEMA Director
	Dennis Greenwalt	PCEMA Asst Director
Pickens Co	TBD	
Shelby Co	Don Greene	SCEMA Director
	Mindy Nash	SCEMA
City of Alabaster	Andrew Bryant	APD
	Deputy Chief Curtis Rigney	APD
City of Calera	Chief Tommy Moon	CFD
City of Columbiana	Acting Chief Lamar Vick	CPD
City of Helena	Captain Tim Carter	HPD
City of Hoover	Michael Cornwell	
City of Montevallo	Chief Kevin Peters	MPD
City of Pelham	Chief Allan Wade	PPD
Town of Vincent	Chief James Srygley	VPD
Univ. of Montevallo	Chief John Lee	UMPD
	Captain Chris Corbell	SCSO
Sumter Co	Chris Vaughan, Chairman	
	Reid Vaughan, Alternate	
	Roy Willingham, Alternate	
	Margaret A. Bishop	EMA/E911 Director
Tuscaloosa Co	Chief Deputy Ron Abernathy	TCSO
	Lt. James Maddox	TCSO
	Sgt. Andy Norris	TCSO
	Greg Prine	TCSO
	Mike Henderson	TC Public Works
	David Hartin	TCEMA
	Dr. Joel Whitman	TCSO
City of Tuscaloosa	Asst. Chief Mittford Tubbs	TPD
	Capt. Jeff Hartley	TPD (Commo)
	Michael Mello	TPD (Commo)
	Battalion Chief George White	TF&RS
City of Northport	Capt. Ron Bolton	NPPD
	Larry Boshell	NP Public Works
	Chief Daryl Patterson	NPFD
Univ. of Alabama	Capt. Tim Summerlin	UAPD
Region 4		
Autauga Co	Ryan Welty	Autauga Co E 9-1-1
	TBD	AC EMA Director
Bullock Co	Fred Hollon	BC EMA Director
	Clarence Blue	BC E 9-1-1
Chambers Co	TBD	
Coosa Co	TBD	
Elmore Co	TBD	
Lee Co	Faith Aguillard	LC EMA Director
	Tom Moore	LC EMA

State of Alabama
2007 Strategic Communications Interoperability Plan

	Bill Meadows	LC E 9-1-1
	Dan Goslin	EAMC EMS
	Chief John Hoar	LCFF Association
City of Opelika	Chief Tommy Mangham	OPD
	Chief Terry Atkins	OFD
City of Auburn	Chief Frank deGraffenried	APD
	Chief Larry Langley	AFD
Lowndes Co	TDB	
Macon Co	Judy E. Kinebrew	MC EMA Acting Director
	Tommy Miller	MC EMA POC
	Chris Papas	Commo Rep.
Montgomery Co	Capt. William Hilton	MCSO
	Sgt. Jon G. Briggs	MCSO
City of Montgomery	Larry Fisher	MECC Director
	Jerry Dillard	MECC Asst. Director
	Major Celia Dixon	MPD
	Steve Barrow	City of Mont. Radio Shop
Russell Co	Chance D. Corbett	OHSEM Director
	Thomas F. Boswell	RCSO Sheriff
	Dell Gamble	CARE Amb. Manager
	Tim Jenkins	RCVF Chief Assoc Pres.
	Brian McGarr	PCPD Chief
	Wallace Hunter	PCFR Chief
	Keith McCray	HPD Chief
Tallapoosa Co	Joe Paul Boone	TCEMA Director
	Anita Haggerty	E 9-1-1 Coordinator
	Deborah Ray Communications	Commo Contractor
Region 5		
Colbert Co	Mike Melton	CCEMA Director
	Michael Smith	CCE911 Supvsr.
Fayette Co	Scott Porter	FCEMA Director
Franklin Co	Roy Gover	FCEMA Director
	Chris Hargett	RPD
	Brandon James	FCSO
	Michael Moomaw	FCFFA
Lamar Co	TBD	
Lauderdale Co	George Grabryan	FLEMA/E911 Director
	Mark Senf	FLEMA COML
	Tim Holt	FLEMA S&R
	Tim Anerton	FF&R
	Gary Friar	FLEMA A.R.E.S.
Marion Co	TBD	
Walker Co	Johnny Burnette	WCEMA
	Regina Myers	WCEMA
	Bruce Hamrick	Walker Co Commission
	Jack Scott	Mayor of Cordova
	George Sides	Mayor of Dora
	Phillip Howard	Mayor of Carbon Hill
	Bobbie Dodd	Mayor of Eldridge
	Sonny Posey	Mayor of Jasper
	Joey Bagwell	Mayor of Kansas
	Gary Knight	Mayor of Nauvoo
	Richard Corey	Mayor of Oakman

State of Alabama
2007 Strategic Communications Interoperability Plan

	Billy Dunn	Mayor of Parrish
	Jeff Fields	Mayor of Sypsey
	H.L. Ellis	Mayor of Sumiton
	John M. Tirey	Sheriff / Town of Jasper
Winston Co	TBD	
Region 6		
Blount Co	Max Armstrong	BCEMA Director
	Max Armstrong	BCE911 Director
	Max Armstrong	HS POC
		BCF Assoc. Chairman
		BCSO Sheriff
Cherokee Co	Beverly Daniel	CCEMA/911
	John A. Roberts	CC Fire Association
	Harry Moon	CC E911 Administrator
Cullman Co	Phyllis Little	CCEMA Director
	Kelly Allen	CCEMA Dpty Director
	Sheriff Tyler Roden	CCSO
	LeighAnne Allen	CCSO Disp. Supvsr.
City of Cullman	Chief Kenny Culpepper	CPD
	Daniel Hunt	City of Cull Technology
City of Hanceville	Chief Philip Bray	HPD
DeKalb Co	Susan Battles	DCEMA Director
	Sabrina Harris	DCE911 Director
	Eddie Whlwhite	Fort Payne 911 Director
Jackson Co	Victor Manning	JCEMA Director
	Larry L. Duncan	DC 911 Director
	Cheryl Miller	Commo Supervisor
Lawrence Co	Hillard Frost	LCEMA/911 Director
	Brenda Morgan	LCEMA Dep Director
	Tammy Vinson	LCEMA Planner
Limestone Co	Spencer Black	LCEMA Director
	Mike Blakely	LCSO Sheriff
	R.V. White	ALC911 Administrator
Madison Co	TBD	
Marshall Co	Sheriff Scott Walls	MCSO
	Anita McBurnett	MCEMA Director
	Johnny Hart	MCE911 Director
	Bill Stricklend	MC Dist 1 Commissioner
	Jeff Lemley	MCE911 Tech Advisor
	Robert Terrell	AFD Asst Chief
	Darren Welborn	MMCAS Asst Director
	Thad Brooks	MCVFA President
Morgan Co	TBD	
Region 7		
Calhoun Co	Candice Cofer	CCEMA COML
	Dan Long	CCEMA Director
Clay Co	Teresa Daugherty	CCEMA Director
	David Hester	CCEMA COML
Cleburne Co	Melinda Gonzales	CCD911 Director
	Steve Swafford	CCEMA Director
Etowah Co	Bill Brodeur	ECE911 Director
	Craig Clark	ECEMA COML
Jefferson Co	Mike Lee	JCSO Commo

State of Alabama
2007 Strategic Communications Interoperability Plan

	Allen Kniphfer	JCEMA Director
St Clair Co	Bill Richvalsky	SCCE911 Director
	Patrice Payne	SCCEMA Planner
Talladega Co	Kevin Jenkins	TCEMA COML
	Larry Wright	TCE911 Director
Poarch Creek Indian Tribe	April Sells	PCITEMA Director

Appendix D: SEIC Working Comm. / Commo POC

Agency Name	Agency POC	POC E-mail	POC Telephone
SEIC Working Committee		ICTAP Workshop	
ALDHS	Art Faulkner	Art.faulkner@dhs.alabama.gov	334 956-7272
Ala Beverage Control Board	Lt. Mark Hatfield	Mark.hatfield@abcboard.alabama.gov	334 213-6300
Ala Dept of Corrections	William A. Haynes, Jr.	Bill.haynes@doc.state.gov	334 567-1590
Ala Dept of Public Health	Andy Mullins	andymullins@adph.state.al.us	334 206-7933
Ala Dept of Public Safety	Major Charles E. Andrews	Charles.andrews@dps.alabama.gov	334 242-4387
Ala Dept of Public Safety	Sgt. Joseph McClellan	Joseph.mcclellan@dps.alabama.gov	334 353-8165
Ala Dept of Transportation	Stacey Glass	glasss@dot.state.al.us	334 242-6277
Ala Emergency Management Agency	Fred Springall	freds@ema.alabama.gov	205 280-2288
Ala Fire Chiefs Assoc	Lynn Bonner	Deputy.chief@ci.vestavishills.al.us	205 978-0225
Alabama Dept of Public Safety	Bill Graham	Bill.graham@dps.alabama.gov	334 242-4139
Alabama Forestry Div.	Roy Mott, Commo	Roy.mott@forestry.alabama.gov	334-240-9322
Alabama Forestry Div.	Stephen May	Stephen.may@forestry.alabama.gov	334 240-9335
Alabama Power	Lyle Mitchell	ldmitchell@southernco.com	205 257-2199
Baldwin Co E 9-1-1	Christine Heger, Dir.	cheher@gulftel.com	251 947-6911
Jefferson Co EMA	Allen Kniphfer	kniphfera@jccal.org	205 254-2039
Mobile County Commission	Eric Linsley	linsleye@attglobal.net	251 574-4030
Opelika Police Department	Chief Thomas Mangham	tmangham@ci.opelika.al.us	334 705-5200
Shelby Co E 9-1-1	John Ellison	john@shelby911.org	205 439-6911

State of Alabama
2007 Strategic Communications Interoperability Plan

Tuscaloosa Co. Sheriffs Dept	Sgt. Andy Norris	andyn@tuscco.com	205 826-4433
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County Communications POC			
Jefferson Co	Allen Kniphfer	kniphfera@jccal.org	(205) 254-2039
Mobile Co	Eric Linsley	linsleye@attglobal.net	(251) 574-4030
	David Roberts	droberts@mcema.net	(251) 460-8000
Montgomery Co	Sgt. Jon Briggs	johnbriggs@mc-ala.org	(334) 832-7117
Autauga Co	Ryan Welty	Ryan.welty@prattville.com	(334) 365-8911
Baldwin Co	Roy Wolf	rwolf@co.baldwin.al.us	(251) 972-6807
Barbour Co	Robert Vickers	rvickers@barbourcounty.com	(334) 687-1200
Bibb County	Chief Kenneth Weems	Chiefdeputyweems701@yahoo.com	(205) 926-4683
Blount Co	Max Armstrong	ema@co.blount.al.us	(205) 625-4121
Bullock Co	Saint T. Thomas, Jr.	N/A	(334) 738-3838
Butler Co	Janice Stampes	Butlercoe911@yahoo.com	(334) 382-9911
Calhoun Co	Candice Cofer	ccoffer@ema.co.calhoun.al.us	(256) 435-0540
Chambers Co	Donnie Smith	dsmith@chamberscounty911.com	(334) 576-0911
Cherokee Co	Beverly Daniel	beverlydaniel@cherokeecounty-al.gov	(256) 927-3367
Chilton Co	Helen Smith	E911@chiltoncounty.org	(205) 351-1823
Choctaw Co	Bill Gibson	wigibson@tds.net	(205) 459-2153
Clarke Co	Roy Waite	rwaite@clarkecountyal.com	(251) 275-8775
Clay Co	Teresa Daugherty	ccema@netcommander.com	(256) 396-5886

State of Alabama
2007 Strategic Communications Interoperability Plan

Cleburne Co	Jeff Edwards	Edwards@cleburnecounty.us	(256) 463-7130
Coffee Co	Larry Walker	lwalker@co.coffee.al.us	(334) 894-5375
Colbert Co	Micheal Smith	mdsmith@colbert911.org	(256) 381-0911
Conecuh Co	Heather Walton	E911c@bellsouth.net	(251) 578-5911
Coosa Co	Lester Sellers	Phenix59@charter.net	(256) 377-2418
Covington Co	Kristi Stamnes	kstamnes@cc911ema.com	(334) 427-4911
Crenshaw Co	Ben Pynes	E911@troycable.net	(334) 335-4831
Cullman Co	David Butts Kelly Allen	kallen@co.cullman.al.us	(256) 739-5410
Dale Co	Tim Byrd	tbyrd@dalecosheriff.com	(334) 774-7996
Dallas Co	Steve Davidson	sdavidson@yahoo.com	(334) 875-9361
DeKalb Co	Mike Leath	M_leath@bellsouth.net	(256) 845-8569
Elmore Co	Adam Graham	agraham@elmoreco.org	(334) 567-6451
Escambia Co	David Adams	dadams@co.escambia.al.us	(251) 867-0232
Etowah Co	Bill Broudeur	Bb911@bellsouth.net	(256) 543-7697
Fayette Co	Reggy Seaborn	739QV@excite.com	(205) 932-4510
Franklin Co	Roy Gober	fcem@hiwaay.net	(256) 332-8890
Geneva Co	Richard Underwood	Geneva004@centurytel.net	(334) 684-6947
Greene Co	Iris Sermon	isermon@earthlink.net	(205) 372-3302
Hale Co	Russell Weeden	N/A	(334)-624-7108
Henry Co	Mickey Shelley	Mshelley1@comcast.net	(334) 585-2222
Houston Co	Charles Finney	cbfinney@houstoncounty.org	(334) 794-9720
Jackson Co	Larry Duncan	Jc911@hiwaay.net	(256) 218-3911

State of Alabama
2007 Strategic Communications Interoperability Plan

Lamar Co	Johnny Bigham	lamarema@bamacomm.com	(205) 695-7105
Lauderdale Co	Mark Senf	msenf@florenceal.org	(256) 760-6363
Lawrence Co	Tammy Vinson	tvinson@charterinternet.com	(256) 974-7641
Lee Co	Tom Moore	Mx4tm@tm-moore.com	(334) 749-8161
Limestone Co	Paul Cain	pcain@limsstonesheriff.com	(256) 216-5014
Lowndes Co	Ransom Granik	rmgranik@htcnet.net	(334) 278-3247
Macon Co	Tommy Mueller	emamacon@bellsouth.net	(334) 727-2500
Madison Co	Chris Reed	chris.reed@hsvcity.com	(256) 427-5133
Marengo Co	Bill Manning	billm@collinscomm.com	(334) 289-0439
Marion Co	Matthew McCracken	mmccracken@marionsoal.com	(205) 921-4555
Marshall Co	Jeff Lemley	jlemley@marshall911.com	(256) 931-3911
Monroe Co	Charles Murph	cmurph@monroe.com	(251) 575-8154
Morgan Co	Jamey Wright	jwright@morgan911.org	(256) 552-0911
Perry Co	DeAndrae Kimbrough	perryeng@bellsouth.net	(334) 247-2372
Pickens Co	Ken Gibson	kgibson@pickens911.org	(205) 367-9800
Pike Co	Tina Jones	Pikeco911@hotmail.com	(334) 566-8272
Randolph Co	Donnie Knight	Chiefknight2002@yahoo.com	(256) 357-0014
Russell Co	Comm.& Electronics	N/A	(334) 298-8962
Shelby Co	John Ellison	john@shelby911.org	(205) 439-6911
St. Clair Co	Bill Richvalsky	brichvalsky@stclairco.com	(205) 884-7709
Sumter Co	Margaret A. Bishop	sumterema@bellsouth.net	(205) 652-6347
Talladega Co	Kevin Jenkins	jenkinsk@tcema.co.talladega.al.us	(256) 761-2125
Tallapoosa Co	Deborah Ray	deborahray@charter.net	(256) 825-

State of Alabama
2007 Strategic Communications Interoperability Plan

			4264
Tuscaloosa Co	Lt. J. Maddox	jmaddox@tuscco.com	(205) 752-0616
Walker Co	Regina Myers	walkerlilema@bellsouth.net	(205) 384-7233
Washington Co	Steven Jackson	sjackson@millry.net	(251) 769-6064
Wilcox Co	Melissa Dove	Wilcox911@yahoo.com	(334) 682-4843
Winston Co	Tim Webb	Winston008@centurytel.net	(205) 489-2747
Poarch Creek Indians	April Sells	asells@poarchcreekindians-nsn.gov	(251) 253-5972

Appendix E: Meeting Minutes / List of SEIC Membership

Roger Humphrey

Director, Cullman County E 9-1-1 / AL NENA
256 734-0911 cull911@hiwaay.net

Jeb Hargrove

Communications, Ala Emergency Management Agency
205 280-2290 jebh@ema.alabama.gov

Fred H. Springall

Communications, Ala Emergency Management Agency
205 282-2288 freds@ema.alabama.gov

William Graham

Communications, Alabama Department of Public Safety
334 242-4139 bill.graham@dps.state.al.us

Craig Hill

Assistant Chief, Alabama Conservation & Natural Resources Department
334 242-3925 craig.hill@dcnr.alabama.gov

Ed Paulk

State Fire Marshall, State Fire Marshall's Office
334 241-4166 edward.paulk@insurmid.alabama.gov

Bruce Baughman

Director, Alabama Emergency Management Agency
205 280-2200 bruceb@ema.alabama.gov

Steven May

Commissioner, Alabama Forestry Commission / Fire Division
334 240-9335 stevenm@forestry.alabama.gov

S.V. Brown

Associate Commissioner, Alabama Department of Conservation
34998 steve.brown@doc.alabama.gov

Richard F. Allen

Commissioner, Alabama Department of Conservation
3-3860 richard.allen@doc.alabama.gov

Dennis Butters

Alabama National Guard
334 271-7207 dennis.butters@us.ng.al

Minutes of the meeting are as follows:

Mr. Jim Walker, Director ALDHS, gave a presentation on the overview of the 2007 Strategic Communications Interoperability Plan that the State of Alabama has to complete by December 3, 2007.

Mr. Art Faulkner, Communications ALDHS, gave a presentation on the specifics of the plan and areas to be covered in the development.

Unanimous agreement was obtained from all represented state agencies that they are committed to a cooperative effort in the development and implementation of the SCIP.

A question and answer session ended the meeting.

Appendix F: Minutes / Attendee List 2nd SEIC Meeting

Dennis Riley, Pike Co. Sheriff Dept	driley@pikecommission.com
Larry Davis, Pike Co. EMA	ema@troycable.net
Fred Springall, AEMA Commo	freds@ema.alabama.gov
Andy Nelson, ALDHS Consultant	anelson43@aol.com
John James, AEMA Asst. Dir.	johnj@ema.alabama.gov
Brett Howard, AAEMA President	n/a
Sgt. Joseph W. McClellan, ADPS	joseph.mcclellan@dps.alabama.gov
Rosemary Perdue, ALDHS Grants	rosemary.perdue@dps.alabama.gov
Dennis Butters, ALNG	dennis.butters@us.army.mil
Andy Mullins, ADPH Prog. Mgr.	andymullinis@adph.state.al.us
Jeff Rogers, ABC Assist. Director	jeffrogers@abcboard.alabama.gov
Mark Hatfield, ABC Logistics Officer	mark.hatfield@abcboard.alabama.gov
Stephen May, AL Forestry Comm.	stephen.may@forestry.alabama.gov
Harold Parker, NENA President	harold.parker@homewoodal.org
Thomas R. Mangham, Chief Opelika PD	tmangham@anpci.opelika.al.us
Chris Heger, AAND President	cheher@gulftel.com
Lynn Bonner, AFCA	fire.dept@ci.vestaby means ofhills.al.us
Ed Paulk, State Fire Marshall	edward.paulk@insurance.alabama.gov
Steve Brown, ADOC Assoc Commissioner	steve.brown@doc.alabama.gov
Brad Fields, ADAI	Brad.fields@adai.alabama.gov
Barnett Lawley, DCNR Commissioner	Barnett.lawley@dcnr.alabama.gov
Hobbie Seay, DLNR Commissioner	Hobbie.seay@dlnr.alabama.gov
Bob Huffaker, Marine Police, Chief Law Site	Bob.huffaker@alacop.gov
John Clifton, Capt. Marine Police	John.clifton@alacop.gov
Craig Hill, WFF/DCNR Asst. Chief.	Craig.hill@dcnr.alabama.gov
Stacey Glass, ALDOT Engineer	glassss@dot.state.al.us
Grover Smith, Sheriff, ECSO	n/a

Minutes from this meeting:

- Jim Walker, Director Alabama Department of Homeland Security, began the meeting with a presentation of Alabama's present communications status and his desire to implement statewide communications system upgrading for all responding agencies. He proposed how ALDHS would use the PSIC Grant Funds beginning in September 2007.
- Joe Longueira, ICTAP Project Manager for Alabama, gave a presentation on ICTAP kick-off briefing and its purpose and goals in helping each state with the Strategic Statewide Interoperability Communications Plan and Investment Justifications. The PowerPoint Presentation included the SCIP Template Outline and CASM.
- Question and answer session

Appendix G: Minutes / Attendee SCIP Workshop

Lyle Mitchell, AlaPowerCo Security	ldmitchell@southernco.com
Lynn Bonner, Deputy Chief, Vestaby means of Hills Fire Dept.	deputy.chief@ci.vestabyhills.al.us
Allen W. Kniphfer, Jeff Co EMA Coordinator	kniphfera@jccal.org
Stephen May, Ala Forestry, Fire Division Director	stephen.may@forestry.alabama.gov
Roy Mott, Ala Forestry, Chief Communications	roy.mott@forestry.alabama.gov
Bill Graham, DPS Chief Communications	bill.graham@dps.alabama.gov
Fred H Springall, AEMA IT/Communications	freds@ema.alabama.gov
Eric Linsley, Mobile Co. Commission APCO Advisor	linsleye@attglobal.net
Charles E. Andrews, ADPS Major/Service Div.	charles.andrews@dps.alabama.gov
Lt. Mark Hatfield. ABC Board, Logistics Officer	mark.hatfield@abcboard.alabama.gov
John Ellison, Director Shelby Co. E 9-1-1	john@shelby911.org
William A "Bill" Haynes Jr., Dept. of Corrections, Director Communications	bill.haynes@doc.state.gov
Joseph W. McClellan. Sgt. AL DPS	joseph.mcclellan@dps.alabama.gov
Christine Heger, Director Baldwin Co E 9-1-1	chegetel@gulftel.com
David B. Brown, Consultant UA Birmingham	brown@cs.ua.edu
Andy Nelson, ALDHS I/O Consultant	anelson43@aol.com
Andy Mullins, ADPH Emergency Preparedness	andymullin@adph.state.al.us
Thomas R. Mangham, Chief of Police, Opelika	tmangham@ci.opelika.al.us
Stacey Glass, ALDOT Asst. State Maintenance Engineer	glass@dot.state.al.us
Andy Norris, Sgt. Tuscaloosa Co Sheriffs Off.	andyn@tuscoco.com

Meeting Minutes/Summary

The two-day workshop focused on the SCIP guidelines and its ten areas of criteria. Each area listed below was discussed. Input from all members was discussed and recorded, as ICTAP and ALDHS acted as facilitators.

1. Background
2. Strategy
3. Methodology
4. Governance
5. Technology
6. Standard Operating Procedures (SOPs)
7. Training and Exercises
8. Usage
9. Funding
10. Implementation

Appendix H: Minutes of AHSTF Meeting to Establish SEIC

The following are the minutes from the Alabama Homeland Security Task Force Meeting on April 4, 2007. This meeting established the SEIC.

Call to order: A meeting of the Alabama Homeland Security Task Force was held at the Association of County Commissions of Alabama in Montgomery, Alabama, on April 4, 2007. Alabama Homeland Security Director Jim Walker called the meeting to order at 10:30 AM.

Members in attendance: Fourteen members or their proxies of the twenty-two Task Force members attended; a quorum was reached.

Unfinished Business: N/A

New Business:

1. The FY07 Program/Capability process was the primary topic of discussion for this Alabama Homeland Security Task Force meeting.

Discussion: Jim Walker reviewed the Alabama Homeland Security FY06 Program/Capability Review program, provided a historical review of previous grant years (FY03-FY06), and provided a detailed update on the FY07 program capability review process and its results.

- A. Jeff Byard (AEMA) discussed the NIMS program and its associated investment justifications.
- B. Jim Walker (AL DHS) discussed the strong county teams, regional mutual aid, and their associated investment justification.
- C. Terry Slater (AGI) discussed the agricultural security program and its associated investment justification.
- D. Michele Jones (ADPH) discussed medical supplies, medical technology, and their associated investment justifications.
- E. Sydney Hoffman (GFBCI) discussed the Citizen Corps program and its associated investment justification.
- F. Bill Eller (DPS) discussed the information fusion center and its associated investment justification.
- G. Maury Mitchell (ACJIC) discussed information sharing, Southern Shield information sharing, and their associated investment justifications.
- H. Joe Davis (AL DHS) discussed interoperable communications and Gulf States interoperable communications and their associated investment justifications.
- I. Jim Walker (AL DHS) discussed the National Forensic Institute and its associated investment justification.
- J. Terry Chapman (DPS) discussed REAL ID and its associated investment justification.

Motion: Moved by Stanley Bateman to adopt the funding recommendations of Alabama Department Homeland Security for FY07. Seconded by William Neal.

Motion carried.

2. Questions and Answers

Discussion: Questions and answers about the FY07 homeland security funding request.

- A. Interoperable Communications-Enterprise Tornado: Jim Walker stated that AL DHS did the right thing in FY04 in improving county interoperable communications and putting regional vehicles around the state and at AEMA. This initiative quadrupled the communications capabilities in each county. The Houston County regional communication vehicle was at Enterprise High School the day of the tornado within the hour. William Neal commented that Luverne sent a crew of responders to Enterprise. They reported to him that radios could not work. Jim Walker stated AL DHS would check into the problem.
- B. Interoperable Communications-State Agencies: Jim Walker stated that we are working on interoperable communications among state agencies. Agencies need to be creative. We must identify all of the towers to get 100% coverage. An executive order is in the works that includes AL DHS, AEMA, DPS, Forestry, APCO, Rural Water Associations, ACCA, League of Municipalities, ABC Board, Sheriff's Association, 9-1-1 Districts, ALDOT, Fire Marshal, Corrections, Conservation, AACOP, AL NG, Fire Chiefs Association, and Volunteer Fire Association. There is a \$1 billion grant being administered by US DHS, based on risk and effectiveness or population (we are not sure at this point). Most likely 80% spent at local level and 20% spent at state level.

***Motion:* Moved by Stanley Bateman to form an Interoperable Communications Subcommittee of the Alabama Department of Homeland Security Task Force in order to begin working interoperable communications issues. If an Executive Order is issued by the Governor creating such a council, the subcommittee will be disbanded. Seconded by Melton Potter. Motion carried.**

3. Virtual-Alabama Alabama Presentation

Discussion: Presentation made by Norven Goddard, AL DHS Assistant Director of Science and Technology and Chris Johnson of the Space and Rocket Center in Huntsville.

Adjournment: Meeting adjourned at 12:45 PM.

Appendix I: NIMS Statewide Compliance Letter



Bruce Baughman
Director

**Emergency Management Agency
&
Department of Homeland Security
State of Alabama**



Jim Walker
Director

May 16, 2007

MEMORANDUM

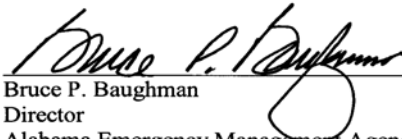
TO: All Alabama County EMA Directors and Homeland Security Points of Contact
FROM: Bruce Baughman and Jim Walker
SUBJECT: National Incident Management System (NIMS) FY07 Certification

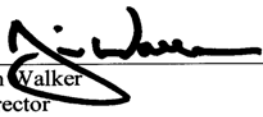
As you know, the US Department of Homeland Security has provided NIMS guidelines for previous fiscal years, and has made NIMS compliance a precondition for FY08 and future year funding.

We are requesting each county designate a single point of contact to serve as the principal coordinator for NIMS implementation in the county and its jurisdictions. Please complete the attached point of contact document and return it to Linda Egger, State NIMS Program Coordinator, Alabama Emergency Management Agency not later than June 15, 2007. She can be reached by phone at (205) 280-2223, FAX (205) 280-2444, or by e-mail at lindae@ema.alabama.gov.

Your designated NIMS point of contact (POC) will be responsible for the documentation of NIMS compliance activities for your county and its jurisdictions. The documentation will be accomplished through NIMSCAST, a web-based FEMA program. The State NIMS Program Coordinator will provide authorization for your POC to access the official NIMSCAST website.

Your assistance in complying with the NIMS guidance and promoting NIMS at the local level is the heart of our state's response capability. Thank you for your efforts in FY07. We look forward to continuing to improve our state's response capability in the coming years.


Bruce P. Baughman
Director
Alabama Emergency Management Agency


Jim Walker
Director
Alabama Department of Homeland Security

Appendix J: MOU Agreement by Local Agencies

**MEMORANDUM OF UNDERSTANDING/AGREEMENT
BETWEEN THE STATE OF ALABAMA AND
LOCAL EMERGENCY RESPONSE AGENCIES
REGARDING STATE USE OF PUBLIC SAFETY INTEROPERABLE
COMMUNICATIONS GRANT FUNDING**

1. **PARTIES.** The parties to this Agreement are the Alabama Department of Homeland Security and Local Emergency Response Agencies (Agencies). Agencies are identified on the signatory page attached.
2. **AUTHORITY.** 31-9A-11-b (See Attached).
3. **PURPOSE.** The purpose of this Agreement is to set forth terms by which the Alabama Department of Homeland Security shall expend Public Safety Interoperable Communications Grant Funding on behalf of the Agencies. Under this agreement, the Alabama Department of Homeland Security allocated grant funding to the Agencies in the amount of Thirteen Million Five Hundred Eighty Five Thousand Three Hundred Ninety Nine Dollars (\$13,585,399.00). Under this agreement, the Agencies authorize the Alabama Department of Homeland Security to make purchases, provided that the Alabama Department of Homeland Security and the Agencies enter into this Agreement on the matter.
4. **RESPONSIBILITIES:**
 - a. Alabama Department of Homeland Security
 - (1) The Alabama Department of Homeland Security shall assume title in all purchases.
 - (2) The Alabama Department of Homeland Security shall provide continuing maintenance on all equipment purchased.
 - (3) The Alabama Department of Homeland Security shall submit all required paperwork and reports for grant funding.
5. **POINTS OF CONTACT:**
 - a. Local Agencies are identified on the Signatory Page

The Alabama Department of Homeland Security- James M. Walker, Jr.,
Director, P.O. Box 304115, Montgomery, AL 36130-4114, 334-956-7250-Off,
334-223-1120-Fax.
6. **OTHER PROVISIONS.** Nothing in this Agreement is intended to conflict with current laws or regulations of the Alabama Department of Homeland Security or the Agencies. If a term of this agreement is inconsistent with such

authority, then that term shall be invalid, but the remaining terms and conditions of this agreement shall remain in full force and effect.

7. **EFFECTIVE DATE.** The terms of this agreement will become effective on November 14, 2007.
8. **MODIFICATION.** This agreement may be modified upon the mutual written consent of the parties.
9. **TERMINATION.** The terms of this agreement, as modified with the consent of all parties, will remain in effect until December 30, 2010. This agreement may be terminated, if agreed to by all Agencies, upon 30 days written notice to the Alabama Department of Homeland Security.

APPROVED THIS THE 14th, day of November, 2007, BY:



The Alabama Department of
Homeland Security

LOCAL AGENCIES


Signature

Dennis Riley
Name (Print)

PIKE CO SHERIFFS Dept.
Agency (Print)


Signature


Christine M Heger
Name (Print)

Baldwin Co. 911
Agency (Print)


Signature

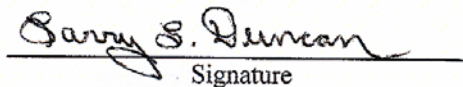
Johnny Alberson
Name (Print)

Butler Vol. Fire Dept (AAVFD)
Agency (Print)


Signature

MAX ARMSTRONG
Name (Print)

BLOUNT COUNTY EMA
Agency (Print)


Signature

LARRY L. DUNCAN
Name (Print)

JACKSON CO 9-1-1
Agency (Print)

Signature

Name (Print)

Agency (Print)

Code of Alabama 1975

Section 31-9A-11

Regular and emergency appropriations; state grants to political subdivisions.

(a) The funds appropriated by the Legislature in the general appropriation act for the support and maintenance of the department shall be expended solely for the purposes designated in the appropriation act and shall be limited to the amounts provided therein and shall be disbursed, in the same manner as all other state funds are disbursed, by warrant of the Comptroller authorized by the director.

(b) The department may coordinate the receipt, distribution, and monitoring of all funds available for homeland security purposes that may be appropriated, or provided by any grant program, to any political subdivision of the state in amounts not to exceed the amounts expended, or to be expended, by the political subdivision for training, planning, education, exercises, personnel, and administrative costs of local homeland security preparedness.

(Act 2003-276, p. 658, §11.)

Glossary

Item/Acronym	Definition
Acronyms	
COG	Council of Governments
EIA	Electronics Industry Association
EMS	Emergency Medical Services
FCC	Federal Communications Commission
GHz	Gigahertz
MHz	Megahertz
KHz	Kilohertz
MOU	Memorandum of Understanding
NCIC	National Crime Information Center
NPSPAC	National Public Safety Planning Advisory Committee
PDA	Persona Digital Assistant
PSWN	Public Safety Wireless Network
RF	Radio Frequency
TIA	Telecommunications Industry Association
UHF	Ultra High Frequency Band
VHF	Very High Frequency Band
Agency	An agency, for the purposes of this document, is a group of radio users organized by political subdivision or response organization.
Antennas	Any structure or device used to collect or radiate electromagnetic waves.
Band	In communications, the spectrum between two defined limited frequencies. For example, the Ultra High Frequency (UHF) is located from 300 MHz to 512 MHz in the radio frequency spectrum.
Broadband	Broadband is a relative term defined as a “broad bandwidth” connection. It allows a large amount of information to travel through a medium at the same time.

Capacity	Capacity is the supportable population based on a number of infrastructure related variables.
CASM	SAFECOM provided Computer Assets Survey and Mapping Software. Used in frequency data storage.
Channel	A single unidirectional or bidirectional path for transmitting or receiving, or both, of electrical or electromagnetic signals.
Communications System	A collection of individual communications networks, transmission systems, relay stations, tributary stations, and data terminal equipment usually capable of interconnection and interoperation to form an integrated whole. Note: The components of a communications system serve a common purpose, are technically compatible, use common procedures, respond to controls, and operate in unison.
Communications Unit Leader (COML)	An incident command communications leader critical for task/skill-related competencies required by the ICS/NIMS Systems.
Conventional Radio System	Uses a dedicated channel (frequency) for each individual group of users.
Coverage	The geographic area included within the range of a radio system.
Data	Representation of facts, concepts, or instructions in a formalized manner suitable for communication, interpretation, or processing by humans or by automatic means. Any representations such as characters or analog quantities to which meaning is or might be assigned.
Dead Spots (or Zones)	The area, zone, or volume of space that is within the expected range of a radio signal, but in which the signal is not detectable and therefore cannot be received. Common causes of dead spots include depressions in the terrain and physical structures.
Deployment	The PSIC Grant Program covers the planning and coordination with, acquisition of, deployment of, and training for the use of interoperable communications systems that use or enable interoperability with communications systems that can use the reallocated public safety spectrum in the 700 MHz frequency band for radio communication or otherwise improve or advance the interoperability of public safety communications systems that utilize other public safety spectrum bands. Deployment requires that communications equipment is built out, standard operating procedures be developed for its use, and service level agreements are developed for the

	interoperable communications equipment.
Digital Signal	A signal in which discrete steps are used to represent information.
Encryption	The process of transforming information to make it unreadable to anyone except those possessing special knowledge, usually referred to as a key.
EMITS	Emergency Management Incident Tracking System. AEMA uses this system to track all incidents by a numbering system.
Frequency	For a periodic function, the number of cycles or events per unit time.
Frequency Bands	Frequency bands where land mobile radio systems operate in the United States including the following: High HF 25-29.99 MHz, Low VHF 30-50 MHz, High VHF 150-174 MHz, Low UHF 406-512 MHz, UHF TV Sharing 4760-512 MHz, 700 MHz 764-776/794-806 MHz, 800 MHz 806-869 MHz
Gateway	Gateway is a network point that acts as an entrance to another network. The term is generically used to refer to various "patch" technologies that link multiple voice communication systems.
Gateway Agency	A public safety agency that has acquired a fixed or mobile gateway device and agrees to abide by the policies established by the responsible Governance Committee.
Gateway Manager (COML)	The Gateway Manager shall be the responsible party within a public safety or public service entity trained for use, operation and deployment of a Gateway (fixed or mobile). The Gateway Manager may deploy one or more subordinate technicians who will act under their supervision and control.
Gateway System	Any communication network set up that involves the utilization of one or more Gateway devices (e.g., ACU-1000).
Governance	A common governing structure for solving interoperability issues will improve the policies, processes, and procedures of any major project by enhancing communication, coordination, and cooperation; establishing guidelines and principles; and reducing any internal jurisdictional conflicts. A governing body should include local, Tribal, State, and federal entities as well as representatives from all pertinent emergency response disciplines within the identified region. A formal governance structure is critical to the

	success of interoperability planning.
Incident Command System (ICS)	The coordinated effort of managing emergency responders that requires functionality outside the scope of the normal job routine. Incident Command is the first requirement to utilizing any interoperability function within the regional communications systems. The Incident Command Structure commences on the field responder level and involves field supervision authority called the Incident Commander. See also <i>National Incident Management System</i> .
Incident Commander (IC)	The Incident Commander provides the field supervision authority during an incident as outlined in the <i>National Incident Management System</i> .
Infrastructure	When relating to radio communications systems, the towers, buildings, generators, radio hardware and software needed to complete and maintain the system.
Interconnect	An interconnect is created by connecting two or more radio channels or voice paths with a gateway device, VoIP interconnection or console link.
Interference	In general extraneous energy, from natural or man-made sources, that impedes the reception of desired signals.
Internet Protocol (IP)	IP is a data-oriented protocol used for communicating data across a packet-switched network. IP is a network layer protocol in the internet protocol suite and is encapsulated in a data link layer protocol (e.g., Ethernet). As a lower layer protocol, IP provides the service of communicable unique global addressing amongst computers.
Interoperability	The ability of public safety agencies to be able to talk to one another – to exchange voice and/or data with one another on demand and in real time.
Interoperability Continuum	The Interoperability Continuum tool is designed to help the public safety community and local, Tribal, State, and federal policy makers address critical elements for success as they plan and implement interoperability solutions. These elements include frequency of use of interoperable communications, governance, standard operating procedures, technology, and training/exercises. The Interoperability Continuum was developed in accordance with SAFECOM's locally driven philosophy and its practical experience in working with local governments across the nation.
Interoperable Communications	Wireless communications interoperability specifically refers to the ability of emergency response officials to

	share information via voice and data signals on demand, in real time, when needed, and as authorized. For example, when communications systems are interoperable, police and firefighters responding to a routine incident can talk to each other to coordinate efforts. Communications interoperability also makes it possible for emergency response agencies responding to catastrophic accidents or disasters to work effectively together. Finally, it allows emergency response personnel to maximize resources in planning for major predictable events such as the Super Bowl or an inauguration, or for disaster relief and recovery efforts.
Interoperability Resources	The devices and systems in use in the region to enable communications interoperability.
Interstate Compact Agreement	A written contract between states to cooperate on a policy issue or program that extends across and through state boundaries.
Investment Justification (IJ)	<p>States and Territories will be required to submit an Investment Justification for each proposed PSIC Investment (project). Up to 10 Investment Justifications will be accepted per State or Territory. A portfolio view of all the State's or Territory's Investment Justifications will include a Statewide Investment summary. The summary will detail the requirements below:</p> <ul style="list-style-type: none"> o Summary of PSIC Investments; o Summary of how the Investments collectively relate to the Statewide strategy/plan; o Description of the process used to identify, prioritize, and select Investments included in the Investment Justification; and o Description of the stakeholders involved in the evaluation and selection of proposals. <p>These Investments should strongly align with the goals and gaps set forth in the Statewide Plan and the PSIC criteria.</p>
Joint Powers Act	A written contractual agreement entered into between two or more public agencies subject to any constitutional or legislative restriction imposed upon any of the contracting public agencies.
Kilohertz (KHz)	A unit of frequency denoting one thousand (103) Hz
Land Mobile Radio (LMR) System	A term that denotes a privately owned, wireless communications system(s) intended for use by terrestrial

	users in vehicles (mobiles) or on foot (portables). Such a system can be independent, but often can be connected to other fixed systems such as the public switched telephone network (PSTN) or cellular networks.
Megahertz (MHz)	A unit of frequency denoting one million (10 ⁶) Hz.
Memorandum of Understanding (MOU)	An agreement of cooperation between organizations defining the roles and responsibilities of each organization in relation to the other or others with respect to an issue over which the organization s have concurrent jurisdiction.
Milestone	A significant point or event in the Investment acquisition, deployment, or training plan.
Multi-Agency	Investment Justification(s) must be multi-agency projects, meaning all Investment Justifications must include multiple public safety agencies or multiple disciplines.
Multi-band/Multi-mode Radio	This radio is capable of reception and transmission in most frequencies employed in public safety applications, as well as operability with any mode of communication used within the aforementioned bands. Users equipped with such a radio would be able to communicate in any public safety radio system, immediately and without prior notification.
Multi-Jurisdictional	Investment Justification must be multi-jurisdictional and/or regional in scope, meaning all Investment Justifications must detail how they will provide capability to communicate across various jurisdictions.
Narrowband	Refers to a situation in radio communications where the bandwidth of the message does not significantly exceed the channel's coherence bandwidth.
National Incident Management System (NIMS)	Guidelines developed by the first responder community an endorsed by national first responder associations and the Department of Homeland Security to establish a consistent nationwide approach to a core set of concepts, principles and standard terminology for incident management. The core concepts include: the Incident Command system (ICS); multi-agency coordination systems; training; identification and management of resources (including system for classifying types of resources); qualification and certification; and the collection, tracking, and reporting of incident information and incident resources.
Pager	A communications device in which the intended receiver is alerted to receive a message or return a call.
Patch	A control center subsystem that permits a mobile or portable radio on one channel to communicate with one

	or more radios on a different channel through the control center console.
Proprietary Software	Signaling protocol or software that is unique to a manufacturer and incompatible with other manufactured systems.
Protocol	A set of unique rules specifying a sequence of actions necessary to perform a communications function.
Public Officials	Public officials represent or work for government entities often in executive roles. Public officials include elected and appointed officials at every level of government working to serve the public in a variety of roles, such as council members, police chiefs, fire chiefs, sheriffs, governors, chief information officers, mayors, and chief communications officers.
Public Safety Answering Point (PSAP)	A facility equipped and staffed to field emergency calls, such as 911.
Public Safety Communications Board	Group established to set public safety policies and to oversee their implementation/execution.
Public Safety Support Providers	Includes those whose primary mission might not fall within the classic public safety definition, but whose mission may provide vital support to the general public and/or the public safety official. Law enforcement, fire, and EMS would fit the first category, while transportation or public utility workers would fit the second.
Radio Cache	A collection of radios stored in a common location (typically as reserve). A portable or permanent storage facility for radios.
Radio Channel	An assigned band of frequencies sufficient for radio communication. Note 1: The bandwidth of a radio channel depends upon the type of transmission and the frequency tolerance. Note 1: A channel is usually assigned for a specified radio service to be provided by a specified transmitter.
Radio Communication	Telecommunication by means of radio waves signal. The detectable transmitted energy, which carries information from a transmitter to a receiver.
Radio Equipment	As defined in Federal Information Management Regulations, any equipment or interconnected system or subsystem of equipment (both transmission and reception) that is used to communicate over a distance by modulating and radiating electromagnetic waves in space without artificial guide. This does not include such items as microwave, satellite, or cellular telephone

	equipment.
Radio Frequency (RF)	Any frequency within the electromagnetic spectrum normally associated with radio wave propagation.
Regional Incident Management	Routine coordination of responses across a region to natural and technological disasters and attacks.
Regional Interoperability Committee (R_IT)	The committee established in the region to oversee regional communications issues.
Regional Interoperability Coordinator (COML)	Executes the day-to-day oversight and coordination of regional interoperable communications resources.
Satellite Radios	Satellite radios are a special digital radio that receives signals broadcast by a communications satellite. This allows the listener to follow a single channel no matter where he or she is because the signal's reach is not limited by station power (as long as there are no major obstructions, such as buildings, in the line of sight between the antenna and the satellite).
Spectrum	The usable radio frequencies in the electromagnetic distribution. Specific frequencies have been allocated to the public safety community.
Spectrum Band	The frequency band of interest in the range of frequencies from Extremely Low Frequency (ELF) to Extremely High Frequency (EHF).
Spectrum Efficiency	For the purpose of the PSIC Grant Program, a spectrum-efficient solution is considered one that consumes the least amount of spectrum to accomplish the mission effectively within the budget, management plan, schedule, use and other constraints.
Stakeholders	A person or group that has an Investment, share, or interest in an Investment. Within the Investment Justification(s), applicants are responsible to include information regarding stakeholder involvement. The applicant's description must demonstrate the public safety disciplines engaged in the development and implementation of Investment(s), to include, but not limited to, law enforcement, fire, emergency medical services, emergency managers, transportation, hospitals/public health, Tribal government entities, and authorized nongovernmental organizations.
Standards-based Technology	The use of a broad range of open, standards-based hardware and software technology. The use of standards-based technology provides the ability to incorporate new technologies as they become available.
Statewide Interoperable Communications Coordinator (SICC)	The person responsible for Statewide Interoperable Communications within the state. Works for ALDHS fulltime.

State of Alabama
2007 Strategic Communications Interoperability Plan

State Executive Interoperability Committee (SEIC)	The committee established statewide to oversee statewide communications issues.
Statewide Communications Interoperability Plan (SCIP)	<p>The PSIC Grant Program leverages the requirement for States to develop, adopt, and submit Statewide Plans by November 1, 2007, which must address locally driven interoperable communications capabilities among local and Tribal government entities, and authorized nongovernmental organizations. The development and adoption of a Statewide Plan is required by Section I.C.5 of the 2006 Homeland Security Grant Program Guidance and Application Kit. Statewide Plans must include the three statutory requirements of the PSIC Grant Program:</p> <ul style="list-style-type: none">o Describe how public safety agencies will acquire, deploy, and train on communications systems that use – or enable interoperable communications with systems that use – the public safety spectrum in the 700 MHz frequency band;o Describe how local and Tribal government entities' interoperable communications needs have been included in the planning process and how their needs are being addressed, if applicable; ando Describe how authorized nongovernmental organizations' interoperable communications needs have been included in the planning process and how their needs are being addressed, if applicable.
System	Any organized assembly of resources and procedures united and regulated by interaction of interdependence to accomplish a set of specific functions.
Tactical Interoperable Communications Plan (TICP)	The TICP for an urban/metropolitan area identifies specific problems, needs, and barriers to communications among the area's agencies and disciplines. The plan identifies potential partners and their roles and responsibilities. It inventories the area's communications resources and details how those resources would be used to provide fast, on-scene, mission-critical voice communications among all first-

	responder agencies. The plan must specify a level of communication appropriate for the incident and complies with the incident command system defined in the National Incident Management System (NIMS) model.
Trunked Radio System	A system that integrates multiple channel pairs into a single system. When a user wants to transmit a message, the trunked system automatically selects a currently unused channel pair and assigns it to the user, decreasing the probability of having to wait for a free channel for a given channel loading.
Unit	A unit is the individual radio subscriber belonging to an agency and maintaining a specific radio identity.
Wide-band	Wide-band is a relative term used to describe a range of frequencies in a spectrum. A system is typically described as wideband if the message bandwidth significantly exceeds the channel's coherence bandwidth.